THE ENSIGN OF PEACE.

SHEWING,

How the HEALTH, both of BODY and MIND, may be preſerved, and even revived by the mild and attenuating Power of a moſt valuable and cheap Medicine. Its ſingular and moſt excellent Property is to ſubdue the FLESH to the Will of the SPIRIT; by which happy Means, Mankind may enjoy a State of Temperance inſtead of Intemperance, and a State of Virtue inſtead of Vice. The continued Uſe of this MEDICINE irradicates moſt Diſeaſes, and is ſeriouſly recommended to the People of this Iſland.

But I keep under my Body, and bring it into Subjecjection: Leſt that by any Means when I have preached to others, I my ſelf ſhould be a caſt away. 1 Cor. ix. 27.

By a FRIENDLY TRAVELLER.

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ERRATA.

Title page, line 12, for irradicates, read eradicates.—p. 19, l. 1, for of, r. or—p. 50, l. 4, r. virtue—p. 74, l. 17, for flattering, r. faltering—p. 94, l. 24, for perſpiration, r. reſpiration—p. 108, l. 25, for it doth, r. they do—p. 117, l. 8, r. ponderous—p. 117, l. 9, omit the word ponderous—p. 132, l. 27, for here, r. there—p. 142, l. 15, r. they—p. 180, l. 7, betwixt the two following words, viz. above; the, a ſemicolon is neceſſary—p. 184, l. 14, r. it—p. 191, l. 17, for panules, r. particles—p. 192, l. 10, for obſerved, r. obſtructed—p. 192, l. 20, for they, r. who—p. 193. l. 7, for who, r. which—p. 193, l. 32, for their r. the—p. 200, l. 3, for and, r. an—p. 201, l. 3, r. or—p. 202, l. 8, for proſperity, r. poſterity—p. 208, l. 16, for ſeller, r. fetter—p. 209, l. 2, for the greateſt, r. a great—p. 209, l. 3, for moſt, r. many—p. 209, l. 14, for tho', r. being—p. 211, l. 6, omit the word (by).

Explanation of my method of pointing out the errors, viz. p. ſtands for page, l. for line, and r. for read.

ADVERTISEMENT.

MANY eminent Philoſophers and Divines have laboured with unwearied aſſiduity for the general good of Mankind, and left behind them a multiplicity of excellent rules, in order to inſtruct and lead men in the paths of virtue and temperance. I do not pretend to any great degree of knowledge in Philoſophy, Divinity, or Phyſic; yet am certain, that I have hit upon a Medicine which will reduce the Fleſh (in a great meaſure) to the Will of the Spirit, and induce men to walk with pleaſure through life, in a more than ordinary good ſtate of bodily health. A great deal has been ſaid in ſeveral pompous advertiſements reſpecting the cure of diſeaſes, though few, I believe, have anſwered the end propoſed. 'Tis far from my deſign to impoſe upon the public; and, I hope, ſuch as make a ſufficient trial of the Medicine will have no reaſon to complain of its effects. The uſeful obſervations I have made on the diſpoſitions,

actions, &c. of mankind in different parts of the world; the experience I have gained by being attentive to the cauſes of the various changes produced in my own conſtitution, and my having ſtudied the nature and properties of the human ſtructure, and the cauſes which bring on the many diſeaſes incident to the human body, together with the great benefit I have received from the uſe of this Medicine, have enabled me to write this book.

It is my firſt effort, and from thence, I hope, trivial faults will be overlooked; as nothing but a warm attachment for the well being of ſociety induced me to make this public.

N. B. Let it be obſerved, that, by the word Temperance, I mean the whole of the Non-naturals, Exerciſe itſelf not excepted.

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THE

THE ENSIGN OF PEACE, &c.

O Intemperance! How haſt thou depraved the human ſpecies? What a ſurprizing aſcendancy haſt thou gained over their ſenſes in the laſt half century only? Is it not through thee that innumerable diſeaſes have taken hold on us, many of which are terrible, and tranſmitted to poſterity epidemical, and often ſeize with violence on the bodies of men that are really temperate, how truly lamentable then is the ſtate of the ſons of Adam? I do here likewiſe charge thee, intemperance, with being the author of almoſt every other evil incident to the human body, and I may ſay ſoul too, as it is well known, that if the body be debilitated, or hath loſt its vigour through intemperance, the ſoul likewiſe ſuffers, and is thereby rendered incapable of performing its functions properly, and too often becomes vicious. Having laid moſt diſeaſes to the charge of intemperance, and alſo moſt other evils, which are at this time very numerous and very deplorable, it may be proper here to ſhew what temperance conſiſts in.

TEMPERANCE, *or how to make a prudent uſe of the non-naturals.*

Health is a proper diſpoſition of the body, and

all its parts for performing their reſpective functions, and this conſiſts in a due connexion: It is likewiſe applied to the mind, and then it makes a juſt diſpoſition of the rational powers, and paſſions, to perform their proper actions, and this in a great meaſure depends on bodily health. Dr Williams.

The continuance of health depends principally on the ſix non-naturals, viz. Air, food, exerciſe, the paſſions, evacuation and retention, ſleeping, and waking. Air in medicine makes one, and not the leaſt powerful of the non-naturals, as upon it the very life of animals depends. It is ſuſceptible of different qualities, hot, moiſt, cold, dry, ſerene, pure, and temperate. It is ſubject to variations more or leſs ſudden, and to be mixed with impure, corrupted, contagious, metallic, ſulphureous exhalations, which are all prejudicial to health; the beſt quality of air is to be pure and ſweet, void of all bad exhalations neither too hot, cold, dry, nor moiſt. The ſudden changes of the air are inevitable and dangerous, whence proceed a great number of diſeaſes which reign in the ſpring and autumn towards the approach of winter. Hoſpitals, camps, and where the earth is juſt thrown up, are generally unhealthy, on account of the bad exhalations. Lighted charcoal in a cloſe place, fills the air with ſulphureous particles, which are unwholeſome, and ſometimes kill the ſtrongeſt perſons. Too hot an air, if it be dry, diſpoſes to malignant fevers; if moiſt, it produces diary, and putrid fevers. Agues are epidemic in the fens of Cambridgeſhire, the hundreds of Eſſex, and in ſome parts of Kent, on account

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of the vapours, which weaken the fibres of the body, and obſtruct the powers of the ſkin; beſides, a cold, and moiſt conſtitution of the air produces coughs, diſtillations, and rheumatic pains. Hectic and conſumptive people are in great danger both in very hot, and very cold weather. When the paſſage through the pores of the ſkin is ſtopt by cold, the patient is either apt to fall into a looſeneſs, or to have his legs ſwelled, and the aſthmatic ſymptoms increaſed.

Aliment is what ever is capable of nouriſhing the animal body. The loſs which we ſuſtain daily makes it neceſſary that it ſhould be repaired by ſubſtances analogous to theſe of our body; ſuch as aliment and drink, the ſtimuluſes to which are hunger and thirſt; wherefore it is neceſſary to know in general their kinds, and principal qualites, in order to make a proper choice. The principal and moſt general aliment is bread, which is made of wheat, rye, barley, and Turkey corn, that of wheat is the moſt nouriſhing, barley is dry, and rye is laxative; the cruſt is moſt eaſy of digeſtion, the crum is more oily and heavy. The other farinaceous ſubſtances are beans, peaſe, and lentiles; they nouriſh much, but are heavy, windy, and viſcous, and conſequently by conſtant uſe are apt to cauſe obſtructions. Rice, barley, and oats, properly prepared, are moiſtening, emollient, and reſtorative. Nuts, almonds, and cheſnuts, are full of a nouriſhing oil, but are hard of digeſtion. Fruits which are pulpous and tart, abound with water, and are refreſhing moiſtening, and ſedative, appeaſing the too rapid motion of the blood, quenching thriſt, digeſting eaſily, ſuch as ſtrawberries, gooſeberries, currants, apricots, and figs;

as alſo peaches, pears, and apples: Theſe ſhould be eaten ripe, and in a ſmall quantity; but they are windy, and therefore are beſt boiled or baked. Pot herbs and roots, are leſs nouriſhing than the mealy ſubſtances. Lettuce, ſuccory, ſorrel, purſlain, refreſh, moiſten, looſen the belly, and appeaſe the orgaſm of the blood. Artichokes, cellery, creſſes, aſpargus and parſley, are a little heating. Truffles, champignons, garlic, ſhallots, pepper, cloves, nutmegs, and muſtard, heat very much. Animals are either terreſtrial, volatile, aquatic, or amphibious: Theſe differ greatly with regard to their kind, age, manner of living and ſubſtance. Fiſh nouriſh the leaſt of all animals, becauſe they abound with phlegm. Young animals have a plenty of a ſoft nouriſhing juice, but that of the older is more nouriſhing. The juice of the old are ſpirituous, gelatinous, and agreeable to the taſte; but the fleſh is hard, and difficult of digeſtion. Wild animals are more light, and digeſtable than the tame. Their white parts contain a very ſucculent ſubſtance of tender fibres, and yield a ſoft aliment, and are eaſy of digeſtion.

Milk is properly nothing but chyle, and conſequently does not need any great preparation in the ſtomach. It is a good aliment for perſons whoſe ſtomachs are languid, and for children. New laid eggs yield very good nouriſhment, are eaſy of digeſtion, and agree with perſons of exhauſted bodies, and thoſe that are old. Chocolate is a very agreeable nouriſhing liquor, ſtrengthens the ſtomach, reſtores the body, helps the digeſtion, and ſoftens ſharp humours. It is proper for perſons of a weak ſtomach. Drinks reſtore the fluid parts of the body; they are a vehicle for other aliments, and render

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the digeſtion eaſy. Water is the principal, moſt ſalutary, and moſt neceſſary for life, of which ſoft water is moſt certainly the beſt. It is the greateſt diſſolvent that we have. Water alone has cured many indiſpoſitions, but too much of it relaxes and weakens the ſolids, and cauſes many infirmities. It is not to be drank cold when the body is heated. Wine taken too freely is prejudicial to health, but moderately it ſtrengthens the ſolids, and facilitates digeſtion; its exceſs, as well as all other ſpirituous liquors, hardens the fibres, affects the nerves, diminiſhes the ſecretions, deſtroys the appetite, and induces chronical diſeaſes in abundance. That malt liquor is accounted the beſt, which is ſpecifically lighteſt, and not ſaturated with too groſs a ſubſtance; for then it does not offend the ſtomach, but paſſes readily through the emunctories of the body, and particularly by urine. The beſt kind of beer does not render the head heavy, nor grow ſour upon the ſtomach, nor inflates the hypochondria. This depends greatly upon the goodneſs of the water, the proper boiling of the ingredients, and the due fermentation.

All thick, muddy, heavy, ſtale beer, not ſufficiently boiled, offends the head, generates wind, obſtructions, the ſtrangury, aſthma, and the cholic. Tea tho' praiſed by many, is, without doubt, hurtful to many conſtitutions, except it be mixed with a good quantity of milk. Broths abound with a ſoft, moiſtening, and nouriſhing gelly, whence they are good reſtoratives. Meat that is roaſted, contains an excellent nouriſhing juice, the moiſt parts being diſſipated by the fire. Things that are fried are only proper for ſtrong ſtomachs. Spices, vinegar, &c. may correct the faults of the aliment when

taken in a ſmall quantity, but are pernicious when uſed to create an appetite; whence made diſhes are commonly bad. The appetite excited by the quality, and diverſity of the viands, provokes perſons to eat more than they ought, which cauſes indigeſtions, frequent indiſpoſitions, and ſometimes dangerous diſeaſes; therefore the ſkill of the cooks of theſe times, contribute greatly to ſhorten their maſters lives. The method of preſerving health, therefore, is to live upon plain, ſimple aliment, lightly ſeaſoned, and in quantity agreeable to the age, ſtrength of the ſtomach, ſeaſon of the year, ſex, conſtitution, and chiefly to what nature is found by experience to require; for it is as great a fault to take too much as too little. Perfect digeſtion is the beſt rule for regulating a meal, eſpecially if the perſon is more briſk and lively after a repaſt than before. We have examples of many perſons, who by their temperance, have lived to a very advanced age; therefore thoſe that are fond of life and health, ſhould imitate their regimen. Exceſs in eating and drinking are extremely pernicious. Neither malt liquor, nor ſpirits, nor yet wine, are neceſſary to people in a good ſtate of health, but may each in their turn be of ſervice in particular indiſpoſitions if uſed prudently. The firſt drinks of mankind were certainly water and milk; but the love of luxury, and debauchery, hath introduced the art of preparing intoxicating drinks out of vegetables: and thus the moſt nouriſhing, and moſt wholeſome fruits of the earth, are deſtroyed in great abundance, in order to put men out of their ſenſes, load them with obſtinate diſeaſes, and render them a burthen to themſelves and civil ſociety; mean time the induſtrious poor

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are in want, and greatly to be lamentd. O intemperance! intemperance! worſe than all the plagues of Egypt; how haſt thou confounded the ſouls of men? Are not their ideas confuſed? Are not the conſciences of thy votaries hardened to ſuch a temper, as not to feel for the indigent. Here I return from the digreſſion, and dwell again upon the non-naturals.

Perſons of a delicate conſtitution, or who are juſt recovered from a diſeaſe, ſhould uſe ſoft, light aliments, agreeable to the ſtomach; for they make the beſt chyle. Acid, tenacious, viſcous, aliment, pies of all kinds, things that are fat and of a blackiſh ſubſtance, are generally unfit for chylification, or render the chyle bad. Strong, robuſt, young perſons, who uſe much exerciſe, ought to eat more than others, and may be more free with the groſſer kind of aliment; for their ſtomachs being ſtrong, the lighter kind of food would digeſt too eaſily, and be diſſipated too ſoon. Children, whoſe ſtomachs are weak, and veſſels fine, ought to uſe a light, thin, ſlender, ſoft aliment, eaſy of digeſtion; wherefore infants ſhould be fed with fluid milk, to avoid cauſing obſtructions in their fine and delicate veſſels. Conſequently the milk of a nurſe, newly brought to bed, is more agreeable to infants than that of one who has been delivered five or ſix months, and whoſe milk begins to have too great a conſiſtence. Nurſes ſhould obſerve an exact regimen, and ſhun all ſorts of violent paſſions; for they diſturb digeſtion, and communicate their bad effects to their children. When infants are weaned, they ſhould not be accuſtomed to ſpirituous liquors, and ſtrong food, eſpecially the ſalt, and ſmoke dried, which are hard of digeſtion, and yield bad nouriſhment.

riſhment. The beſt method is to eat often, and little at a time. In old age the fluids are thick, the ſecretions ſlow, and the ſolids more ſtiff than in youth; wherefore they require leſs food, and of a more ſoft, nouriſhing, moiſtening, kind, eaſy of digeſtion, and not too much at a time, eſpecially in the evening. In all times of life, eſpecially in old age, the conſtant and immoderate uſe of ſalt, and ſmoke dried meat, acid and aromatic vegetables, as well as ſpirituous liquors, tend to harden and ſtiffen the parts of the body, inſtead of affording good nouriſhment, beſides the digeſtion of theſe aliments is difficult and render the blood ſo acrid as to hurt the capillary veſſels. However, an acquired habit is hard to be left off, and we find many perſons enjoy a pretty good ſtate of health, when their meat and drink is very indifferent, becauſe they are become cuſtomary; cuſtom being a ſecond nature, all great changes ought to be brought about inſenſibly. Hunger ſhews the beſt time of eating, but cuſtom confines us to certain hours. Perſons who find no inconveniences from dining and ſupping every day, need not change their manner of life. In youth wherein there is a great diſſipation, and in age when ſtrength is wanting, and when little is eaten at a time, ſomething taken between meals is not amiſs. However, it is neceſſary to obſerve, that when the ſtomach is bad, perſons ſhould not begin to eat again till the laſt meal is digeſted. When a perſon is greatly fatigued and his ſpirits diſſipated, it will be neceſſary to reſt before eating. In caſes of diſtreſs and ſorrow, the aliment ſhould be very light, and ſmall in quantity, becauſe the ſtomach is weak at thoſe times. In the ſummer, when the ſpirits and fluid

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parts are apt to evaporate, the aliment ſhould be light, moiſt, fluid, and eaſy of digeſtion, to repair the loſs with the greater ſpeed; whereas in winter the ſtomach will admit of groſſer food. Temperament, among phyſicians, denotes the ſame with conſtitution, or a certain habitude of the humours of the human body, whereby it may be denominated hot, cold, moiſt, bilious, ſanguine, phlegmatic, melancholic, &c. According to Boerhaave, moiſtening, diluting, and temperating ſubſtances are a proper diet for perſons of a hot and acid temperament; and on the contrary, all heating things are prejudicial to them: whereas in perſons of a cold and moiſt habit, juſt the reverſe obtains. To perſons of a ſanguineous temperament, evacuating and temperating medicines are beneficial, and heating or draſtic ſtimulating things pernicious.

Perſons of a melancholy temperament are greatly injured by hot, drying, and acrid ſubſtances: Whereas moiſtening, refrigerating, relaxing, emollient ſubſtances, and ſuch as gently diſſolve without acrimony, are beneficial to them. I cannot willingly leave this article, viz. diet, without blaming people in regard to the bad management of fleſh and milk. There are multitudes of people who think it a good piece of œconomy to provide large quantities of fleſh meat againſt winter, and in order to preſerve it, they lay upon it a great quantity of ſalt, that it may keep four or five months without ſtinking; this method however doth not prevent the moſt nouriſhing parts of it from turning putrid, whether it be pickled, or whether it be ſmoke dried; ſuch meat is therefore unwholeſome, after being ſalted a few weeks, and

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one pound of freſh meat is better and more nouriſhing, than two pound of ſuch ſalted meat, which hath been long kept; and thus the moſt nouriſhing ſubſtance is in a great meaſure waſted. Now ſuppoſe I uſed the above imprudent method in my own houſe, whilſt the hand-labour of the induſtrious poor cannot afford them a comfortable ſubſiſtance, I ſhould be uncharitable as well as theſe ſons of ingratitude, I ſay ingratitude, who keep uſeleſs dogs, and horſes, &c. to devour the fruits of the earth. Is not this ingratitude to God, the benefactor of all mankind, who hath liberally beſtowed fruits, and fruitful ſeaſons for the ſupport of man? The rich men, in many parts of Aſia, who have neither received the light of the law or goſpel, are much more charitable than the generality of their equals in wealth in Europe; but then the former are generally very temperate, and therefore retain a natural feeling for their fellow creatures. Dr Cheyne extols a milk diet in his writings, particularly in his method of cure in diſeaſes of body and mind: See his eſſays, on the gout, health, and long life, &c. It is very certain that men may live for years upon milk alone, and perform all the actions of life, and have all the ſolid, and fluid parts of their bodies perfectly elaborated. Notwithſtanding the European nations boaſt of a ſuperior knowledge to the reſt of the world, yet the Indians in Aſia, make a much better uſe of that excellent animal the cow, in regard to diet than the Europeans do in general: I have frequently aſked them why they would not kill a cow; becauſe ſay they, the cows feed our children, and plough our ground, and their anſwer was always to

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the above purport. It ſeems to me that in Europe, and eſpecially in my native country, Britain, much more milk, and much leſs fleſh meat, ſhould be uſed, as voluptuouſneſs hath introduced even new diſeaſes, effeminacy, a depravation of appetite, and alſo of the Soul itſelf. In this effeminate age, an upright man of ſound judgment may honeſtly tell us, that the milk produced from one cow in one year, even in the country, is of more real worth than all her parts when ſlaughtered, by fifty per cent. provided ſhe be properly fed with graſs, good hay, and good water; why then ſuch deſtruction amongſt female calves, and young cows? What but the higheſt folly of a degenerate race of pitiable mortals. Cows will produce a white ſubſtance, if they be fed in part upon rotten grains; but this is making a ſecond bad uſe of that precious ſubſtance corn, by rendering the cows unſound, and their milk unwholeſome. The greateſt cleanlineſs ought to be uſed, by people who have the ordering of milk, and in ſummer they cannot keep it too cold, nor in too good an air, neither ſhould they keep it too long at any ſeaſon of the year: However, the ſelfiſh and baſe diſpoſition of man, is now growing to ſuch an amazing height, that half the milk which is ſold is ſcarce fit for healthy people, much leſs for delicate people, and tender infants. What a mortifying ſcene is this! This one circumſtance drives thouſands into the very midſt of intemperance, and is no doubt the means of the death of many infants. When mechanics, &c. in great towns find they cannot procure good milk for their money, viſcid, and glutinous drink with viſcid,

and

and glutinous cheeſe, and a little bread is ſubſtituted for breakfaſt and ſupper; and thus they contract a habit for drinking which generally produces many ſad, and diſmal effects. In what manner then ſhall I level againſt thoſe baſe and ſecret enemies of mankind, who adulterate that excellent ſubſtance milk? They are worſe than highwaymen, becauſe they are more hurtful to the community in general; and as they drive men into drunkenneſs, they are a means of breeding highwaymen, &c. and may live in fearful expectation of a juſt reward for their works. What ſhall I ſay to the man who hath ground of his own, contiguous to a large town, ſufficient to keep ten good milk cows, but through avarice procures rotten grains, (for ſuch they are before they are cold) and other traſh for a trifle, which enables him to keep fifteen, whoſe milk he ſells to the town. This man is a knave, impoſes on a great number of people, at the expence perhaps of many lives, and drives many, who will not take his bait, into intemperance and miſery. He is a curſe to himſelf, and a ſcourge to his neighbours; for had an honeſt man kept but ten cows on the ſame ground, and fed them properly, their milk might have been a real bleſſing to the town, and prevented many diſmal and fatal diſaſters. There are in many places large quantities of milk ſold after the cream hath been taken of it. If this milk be good in nature, hath been cleanly, and honeſtly done by, it may be exceeding good at the age of twelve or fifteen hours, but it is too often kept to the age of twenty-four, thirty-ſix, or even more hours, hath frequently a bad taſte when ſold; yet alas! great quantities of this ſort comes to the lot of the induſtrious

duſtrious poor; now it is very eaſy to foreſee what unnatural acid ferments, and painful conflicts ſuch diet muſt create in the bowels of people who are tender, and eſpecially in the children of this effeminate age, who are frequently tormented with acid crudities, be their diet ever ſo good. Many and pitiable are the diſeaſes which affect the indigent through the uſe of bad milk, and other traſh which they are partly obliged to eat; however, I would not have them deſpair of relief as there ſtill remains a proſpect of better times.

They who keep milk until it be hurtful to the people who uſe it, moſt daringly inſult divine providence; they abuſe the precious gifts of God and except they reform may expect the juſt reward of their works.

EXERCISE.

EXerciſe comes now to be treated of: It is ſuch an agitation of the body as produces ſalutary effects in the animal oeconomy. Dr Cheyne obſerves that exerciſe is indiſpenſably neceſſary to preſerve the body in due plight; without exerciſe, the juices will thicken, the nerves relax, the joints ſtiffen; and on theſe diſorders chronical diſeaſes and a crazy old age will enſue.

The body may be conſidered as a ſyſtem of tubes and glands admirably adapted throughout as a proper engine for the ſoul to work with: Exerciſe ferments the humours, caſts them into their proper channels, throws off redundances, and helps nature in thoſe ſecret diſtributions without which the body cannot ſubſiſt in its vigour, nor the ſoul act with chearfulneſs.

Had not exerciſe been abſolutely neceſſary for our well being, nature would not have given ſuch

pliancy to every part as neceſſary produces thoſe compreſſions, extenſions, dilatations, and all other kind of motions neceſſary for the preſervation of ſuch a ſyſtem of tubes and glands: And that we might not want inducements to ſuch an exerciſe of the body, riches and honour, even food and raiment are not to be come at without the toil of the hands and ſweat of the brow: He further obſerves, that theſe organs of the body which are moſt uſed always become the ſtrongeſt. The legs, feet, and thighs of chairmen, the arms and hands of watermen, the back and ſhoulders of porters, grow thick and ſtrong by uſe. Of all the kinds of exerciſe, there is none which conduces ſo much to the health, or is ſo well acommodated to the body, as that of riding, which is leſs laborious, and expenſive of ſpirits than any other: Dr Sydenham is very laviſh in its praiſe; Dr Mead too recommends it in the concluſion of his Monita & Præcepta. Every man ought to lay himſelf under ſome ſort of neceſſity to take exerciſe.

Indolence, like all other vices, when indulged, gains ground, and at length becomes agreeable: Hence many, who were fond of exerciſe in the early part of life become quite averſe to it afterwards. This is the caſe with moſt hypochondriac and gouty people. Indolence not only occaſions diſeaſes, and renders men uſeleſs to ſociety, but promotes all manner of vice. To ſay a man is idle, is, perhaps, in the ſtrongeſt terms, to call him vicious. The mind, if not engaged in ſome uſeful purſuit, is conſtantly in queſt of ideal pleaſures, or impreſſed with the apprehenſion of ſome imaginary evil. From theſe ſources proceed moſt of the miſeries of mankind. Surely man never was intended to be idle. Inactivity fruſtrates the very

deſign

deſign of his creation. An active life is the beſt guardian of virtue, and the greateſt preſervative of health. A lazy perſon is, of all others, the moſt incapable of pleaſure; a wretch who ſlumbering, in a perpetual lethargy, cannot be ſtimulated to action, or rouſed from his inſenſibility. He is his own burthen, and would fain fly from himſelf, but is not able; that eternal inappetency, which he drags about with him, aſſumes a thouſand different forms for his own puniſhment and that of others; now it is laſſitude—he feels himſelf dull, heavy, and not able ſo much as to move a finger; it is now indiſpoſition—he finds himſelf oppreſt by a diſorder which he cannot define; at other times it is a melancholy, of which he knows not the cauſe, and his temper is always uneven, captious, and ſplenetic. If his word may be taken, no man was ever ſo ill treated; he lives neglected, ſuffers unpitied, and ſhould he die would be unlamented by the whole circle of his acquaintance, who are ſo deſtitute of compaſſion as to wiſh he was already in his grave. This, indeed, would be to wiſh him well; for the gloomy habit of his mind, his indolence, and want of exerciſe, will ſhortly realize all his imaginary diſorders; and he will be tomorrow, if he is not to-day, pale, dejected, languid, emaciated, and totally debilitated in body and mind: and is life a benefit to thoſe who preſerve it on ſuch conditions as theſe? Supineneſs and effeminacy have ruined more conſtitutions by far than exceſſive labour; and moderate exerciſe, far from being deſtructive to health, eſtabliſhes and ſtrengthens it, chears and enlivens the ſoul, by which man may have great pleaſure in living, and alſo in being of ſervice to his fellow creatures if he

is otherwiſe temperate. As we are members of a ſociety, the aſſiſtance of which is neceſſary to our well being; to merit this aſſiſtance, we ought in our turn to ſerve that ſociety with alacrity and zeal; to diſcharge our duty with languor and indifference is not to acquit ourſelves of the obligation; and nothing can be well done which is done with reluctance. There are a hundred different employments, all which concur in promoting the common intereſt. Let us chooſe one among thoſe which we have abilities to execute; let our ſtate and capacity be conſulted, and our deciſion be in favour of that employment which appears upon the whole to be moſt eligible; but the choice once made, let it be a point of honour to excel in that profeſſion to which we have given the preference. By the following may be underſtood what the ancient heathens thought of idleneſs: Solon ordered that ſtrict enquiry ſhould be made among the inhabitants of Athens how each lived in his own houſe, and thoſe who were found idle were ſeverely puniſhed: Piſiſtratus going a progreſs through his kingdom, ſaw ſeveral men walking together in a field, who, on his approach, fell at his feet, imploring his charity: If you want beaſts to plough your lands, ſaid he, I will give you ſome; if deſtitute of ground, I will ſhare mine with you: If ſeed be wanting to ſow it, repair to my granary and be furniſhed; for I encourage none but thoſe that work. By this behaviour there were in a ſhort time no beggars in the realm. Aelian.

Lazineſs is ſo pernicious, that it not only opens the way to all manner of debaucheries, but it alſo ſpoils the moſt virtuouſly inclined: as for example, Alcibiades, Antonius, one of the triumvirate, Mutianus,

tianus, and many other perſons, who, whilſt they kept in action, did things worthy of immortal memory; but when once they ſuffered their warlike diſpoſition to relax, ſunk into voluptuouſneſs, and every vice it brings with it. Plut. Lives.

The PASSIONS.

THE Paſſions come next in courſe among the non-naturals; they produce very ſenſible effects. Joy, anger, and fear, are the principal. In the two firſt, the ſpirits are hurried with too great rapidity; whereas, in fear or dread, they are, as it were, curbed and concenterated: whence we may conclude that they have a very bad effect upon health, and therefore it will be beſt to keep them within bounds as much as poſſible, and to preſerve an inward ſerenity, calmneſs, and tranquility. Continual ſorrow and anguiſh of mind render the fluids thick, and generate viſcid and acid crudities in the ſtomach, and at length render the body unapt for a due circulation; whence proceed obſtructions of the viſcera and many chronical diſeaſes. Anger conſtringes the bilious veſſels in particular, and cauſes too great an evacuation of the bile, produces ſtrictures in the ſtomach and duodenum; whence the bilious humours are amaſſed and corrupted, laying a foundation for vomiting, bilious fevers and the cardialgia. Dr Williams. The paſſions have great influence both in the cauſe and cure of diſeaſes: and how the mind acts upon matter will in all probability ever remain a ſecret. It is ſufficient for us to know that there is eſtabliſhed a reciprocal influence betwixt the mental and corporeal parts, and that whatever diſorders the one likewiſe hurts the other.

The paſſion of anger ruffles the mind, diſtorts the countenance, hurries on the circulation of the blood, and diſorders the whole vital and animal functions: it often occaſions fevers, and other acute diſeaſes, and ſometimes occaſions ſudden death. This paſſion is peculiarly hurtful to the delicate, and thoſe of weak nerves. It hath been known that a hyſteric woman hath loſt her life in a violent fit of anger: all ſuch ought to guard againſt the exceſs of this paſſion with the utmoſt care. Such as value health, ſhould avoid violent guſts of anger as they would the moſt deadly infection. They ought never to indulge reſentment, but to endeavour at all times to keep their mind calm and ſerene. Nothing tends ſo much to the health of the body as a conſtant tranquility of mind. The influence of fear, both in occaſioning and aggravating diſeaſes, is very great. Fear and anxiety, by depreſſing the ſpirits, prediſpoſe us to diſeaſes, and often render thoſe fatal which an undaunted mind would overcome. Sudden fear has generally violent effects; epileptic fits and other convulſive diſorders are often occaſioned by it; hence the danger of that practice, ſo common among young people, of frightening one another: by this many have loſt their lives, and others have been rendered uſeleſs ever after. It is dangerous to tamper with human paſſions.

They may eaſily be thrown into ſuch diſorder as never again to act regularly: but the gradual effects of fear prove more generally hurtful. The conſtant dread of ſome future evil, by dwelling upon the mind, often occaſions the very evil itſelf. Hence it comes to paſs, that ſo many die of theſe diſeaſes which they long had a dread of, or

which

which ſome accident of fooliſh prediction had impreſſed on their minds. This often happens to women in child-bed: many of thoſe who die, in that ſituation are impreſſed with the notion of their death a long while before it happens, and there is reaſon to believe that ſuch impreſſions are often the cauſe of it.

Grief is the moſt deſtructive of all the paſſions: its effects are permanent, and when it ſinks deep into the mind it generally proves fatal. Anger and fear, being of a more violent nature, ſeldom laſt long; but grief often changes into a fixed melancholy, which preys upon the ſpirits, and waſtes the conſtitution. We ſhould beware of indulging this paſſion. It may generally be conquered at the beginning; but when it has gained ſtrength, all our attempts become vain. Change of ideas is as neceſſary for health as change of poſture: when the mind dwells long upon one object, eſpecially of a diſagreeable nature, it hurts the whole functions of the body. Thus grief indulged, ſpoils the digeſtion, and deſtroys the appetite; by that means the ſpirits are depreſſed, the nerves relaxed, the bowels inflated with wind, and the humours for want of freſh ſupplies of chyle vitiated. Thus many an excellent conſtitution has been ruined by a family-misfortune, or any thing that occaſioned exceſſive grief. It hath already been obſerved, that exerciſe is abſolutely neceſſary for the health of the body, but it is no leſs ſo for that of the mind. Indolence nouriſhes grief: when the mind has nothing elſe to think of but calamities, no wonder that it dwells there. Few people who purſue buſineſs with attention are hurt by grief. Inſtead of abſtracting ourſelves

from

from the world or buſineſs, when misfortunes happen, we ought to engage in it with more than uſual attention, to diſcharge with double diligence the functions of our ſtation, and to mix with friends of an eaſy ſocial temper. Some when overwhelmed with grief betake themſelves to drinking: this is making the cure worſe than the diſeaſe. It ſeldom fails to end in the ruin of fortune, character, and conſtitution. Innocent amuſements are by no means to be neglected: theſe, by leading the mind inſenſibly to the contemplation of agreeable objects, help to diſpel the gloom which misfortunes caſt over it. They make time ſeem leſs tedious, and have many other happy effects.—Dr Buchan.

SLEEP.

SLEEP is that ſtate wherein the body appearing perfectly at reſt, external objects move the organs of ſenſe, as uſual, without exciting the uſual ſenſations. Every one knows that in ſleep there is a ceſſation from action. When waking, we walk, diſcourſe, move this or that limb, &c. but in natural and indiſturbed reſt, there is nothing of all theſe; that is, whereas being awake, we perform ſeveral motions by the voluntary contraction of our muſcles; when aſleep, theſe muſcles only are contracted whoſe action is in a manner voluntary, or to which the mind has always ſo conſtantly determined the ſpirits, that it does it by a habit without the intervention of the reaſoning faculty; ſuch are thoſe of the heart and breaſt: ſo that there is at this time, a relaxing or looſeneſs of the moving fibres of the ſeveral members, or at leaſt ſuch a quiet poſition and ſtate of them, by which all the antagoniſt muſcles are in an æquilibrium and equality of action, not overpowering

powering one another: for this indeed ſeems to be one great deſign of ſleep to recover to the parts over-ſtretched with labour, their former tone and force; and therefore we do naturally, when compoſing ourſelves to reſt, put our body into that poſture which moſt favours the particular wearied limbs, and conduces to this end. In the next place, it is very plain that there is in ſleep, not only a reſt and ſuſpenſion from acting of moſt of our bodily organs, but even of our thinking faculty too; that is, to prevent cavils, a ceaſing from ſuch thoughts as when waking we are exerciſed about, which we do reflect upon, and will to employ our minds with; for tho' dreams are thoughts, yet they are but imperfect and incoherent ones, and are indeed either ſo faint and languid repreſentations as to be conſiſtent with our ſleep as ſome may be, or elſe if they be ſtrong and lively, they are as every one knows, the interruption and diſturbance of it. From hence it will follow, that the motion of the arterial fluid muſt be more ſedate, even, and regular, in the time of ſleeping than waking; for beſides the various alterations, which in the latter ſtate this receives from the ſeveral paſſions of the mind, the very contractions of the muſcles themſelves, in exerciſe of the body, do differently forward its courſe: whereas in ſleep, the force of the heart and the organs of reſpiration being more conſtant and uniform, gives it a more calm and equally continued impulſe. Hence alſo it will come to paſs, that the influx of the liquor of the nerves into the organs of the body; as alſo its reflux towards the brain is, in ſleep, either none or very inconſiderable; that is, that this fluid has, at this time, but little or no motion; for it is

muſcular

muſcular action and ſenſation that require it to be thus determined this way or that, which are now hardly any, and yet by the arrival of the blood at the brain, this juice will ſtill be ſeparated there, fit to be derived into its canals or tubes; ſo that by this means there will be a kind of accumulation or laying up in ſtore of ſpirits for the offices and requirements of waking. Thus we may, in ſhort, look upon this time as the time of wearing out, or the deſtruction of, the animal fabric; and the time of ſleep, as that in which it is repaired and recruited; and not only on the account we have juſt mentioned, concerning the nervous liquor, but alſo with reſpect to all the other parts, as well fluid as ſolid; for action does neceſſarily, by degrees, impair the ſprings and organs; and in motion ſomething is continually abraded, and ſtruck off from the diſtractile fibres, which cannot be otherwiſe reſtored than by their being at reſt from tenſion. Beſides that, ſuch a regular and ſteady courſe of the blood as we have obſerved to be in ſleep, is by far more fit and proper for nutrition or an appoſition of parts to the veſſels which an uneven hurry of it is more apt to tear off and waſh away. Dr Williams. An antient maintains that the time we paſs in ſleep is, by many degrees, more agreeable and ſweet than that in which we are awake; the one is full of repoſe, and the other of diſquiet. We can know no joy when waking, that we feel not more exquiſite in ſleep.

A ſecond antient maintains, that the truly innocent, in this life, have a taſte in ſleep of thoſe immortal joys ordained to be their portion in another. This was doubtleſs the caſe with the generality of mankind formerly; but alas! how

is the ſcene changed; they were temperate, we are intemperate; they were virtuous, we are in general vicious: their vigorous conſtitutions could not be idle, and therefore they had great pleaſure in ſleeping: we in general, but more eſpecially the rich, who ought to ſet virtuous examples to the poorer ſort, which follow them, are a ſet of indolent people, therefore have very little pleaſure either aſleep or awake. It hath been the opinion of the learned, in all ages, that too much ſleep dulls the underſtanding, enervates the ſoul, and fills the body with groſs humours. St Barnard to excite the religious, under his care, to wakefulneſs, tells them, that they ought to remember that all the time paſſed in ſleep, beyond what is required by nature, was miſuſed; for that in ſleep nothing could be done either for the glory of God, or the ſalvation of our ſouls. Pliny ſays he muſt be a wretch indeed, and truly worthy of contempt, who ſleeps becauſe he has nothing elſe to do: And Demoſthenes, that a thinking ſoul can never want employment. Had Plato, Seneca, Euripides, Sophocles, Ariſtotle, Homer, or many other eminent men been indulgers of ſleep, we ſhould neither have had morals nor philoſophy to inſtruct, nor poetry to delight us.

All the aſſiſtance our geniuſes receive from books, or our own application, is owing to a vigorous oppoſing the invaſions of drowſineſs. One of the moſt eminent fathers of the church looks on giving way to ſleep, to be among the number of the moſt deadly ſins, becauſe it not only renders us unable to do any good action for the time, but alſo makes us by degrees too ſlothful to endeavour at all at any thing praiſe worthy. The activity of our minds,

minds, the ſtructure of our bodies, the vigour and mobility of our organs, and above all, our continually returning neceſſities, demonſtrate that the hand which formed us, formed us for a buſy and active life; and the end for which the creator deſigned us is undoubtedly the beſt to which we can poſſibly attain. That the neceſſity of labour ought to be regarded as a puniſhment, is a mean and ſordid opinion, invented by the effeminate and lazy; on the contrary, if God had prohibited labour, ſuch prohibition might juſtly have been deemed a token of his diſpleaſure, for inaction is a kind of lethargy equally pernicious to the mind and body.

I have been treating of temperance, and ſhewing how to make a prudent uſe of the non-naturals; and before I quit this ſubject, muſt add a ſhort extract to it, taken from Dr Cadogan's excellent treatiſe on the gout and all chronic diſeaſes, for the benefit of ſuch as are too fond of indulgence. "Inactivity forms obſtructions, in "theſe exquiſitely fine parts upon which the health "and vigour both of body and mind depend "entirely, and lays the foundation of many "diſeaſes to come, which the induſtrious and "active never feel. No man can have theſe "delightful ſenſations, who lives two days with "the ſame blood, but muſt be languid and "ſpiritleſs: in a ſtate of inactivity the old hu-"mours paſs off ſlowly, and the inſenſible per-"ſpiration is inconſiderable: in a ſtate of indo-"lence they do not paſs off either ſo ſoon or "ſo regularly as they ought; hence the breath "and perſpiration of indolent people are never "ſweet. Is it not ſtrange, that many would "ſooner take a vomit or purge than a walk?

this

" This indolence muſt inevitably lay the foun-
" dation of general diſeaſe!".

" Rouſe ye, then, my countrymen, whilſt it is
" time, and ſhake off that morbid and deſtructive
" vice: it is a vice fraught with the moſt tre-
" mendous conſequences; for whilſt a man is
" burthened with it, he is neither fit to live nor
" die well." Nine in ten of all the chronic diſ-
eaſes in the world, particularly the gout, owe their firſt riſe to intemperance. Indeed, I cannot allow him to be ſtrictly temperate who drinks any wine or ſtrong liquor at all. If you want ſomething to give you an appetite, ſeek it by labour. Whatever is hardened or ſeaſoned, ſo as to keep long before it be eaten, ought not to be eaten at all, for it will never diſſolve in the ſtomach. The fumes ariſing from fermented liquors, of any kind, have been known ſometimes to kill at a ſtroke. Wine alone produces more diſeaſes than can well be imagined; the ſtomach wants wine no more than the noſe does ſnuff. Water is the element that dilutes and carries off crudities and indigeſtion. Every great degree of vexation, whether in the ſhape of anger, envy, reſentment, diſcontent, or ſorrow, has moſt deſtructive effects upon the vitals of the body, whether ſudden and violent, or ſlow and laſting. Whoever is long vexed, muſt certainly want nouriſhment; it is in ſleep that all nouriſhment is performed. We complain of a bad conſtitution, when perhaps we have ſported away a very good one.

Dr Cadogan is not the only one who juſtly condemns artificial drink: numbers of eminent authors might be quoted to ſhew that there is ſcarce any need of it. Dr Buchan very judiciouſly

obſerves, that men who never taſte ſtrong liquors are not only able to endure more fatigue, but alſo live much longer than thoſe who uſe them daily; but ſays he, ſuppoſe ſtrong liquors did enable a man to do more work, they muſt nevertheleſs waſte the powers of life, and of courſe occaſion premature old age. They keep up a conſtant fever, which waſtes the ſpirits, heats and inflames the blood, and prediſpoſes the body to numberleſs diſeaſes.

Of the baneful conſequences of INTEMPERANCE, *and the happy effects of its oppoſite* TEMPERANCE.

THE following is introduced on purpoſe to ſet the intemperate at variance with their evil habits, in order that they may, with a ſtronger reſolution, embrace my pleaſant and delightful method of ſubduing that monſtrous and deſtructive tyrant, which threatens no leſs than the depopulation of the earth. Firſt of drunkenneſs. Drinking to exceſs is a vice which is but ſeldom unaccompanied by others: rapes, murders, all kinds of miſchiefs, have been the conſequence. If Lot had not drank too much wine, he had never committed inceſt with his daughters: Gen. 19th. The ſon of St Cyril, being overpowered with wine, killed his father, and his mother when ſhe was great with child, wounded two of his ſiſters, and violated another. After the Perſian delicacies had corrupted the ſobriety of Alexander, he became an exceſſive lover of wine; and to authoriſe it in others, he proclaimed rewards to thoſe who drank moſt, and cauſed a great cup to be made which he called after his own name Alexander; which preſenting one day full of wine to Caliſthenes, he refuſed it, ſaying, if I drink out of an

Alexander

Alexander I ſhall have need of an Eſculapius; which ſevere jeſt ſo enraged the King, that he made him be put into a cage with his dogs, where he ſoon after died, having ſwallowed poiſon thro' the impatience of his ſhameful captivity: Plut. in his life. However, the ſame Alexander was one of the moſt generous and forgiving princes, before his ſoul was debaſed by intemperance, witneſs the following: he paid the moſt ſtrict obſervance to his mother Olympia, in every thing which concerned not the affairs of government; but being deprived of that, which her ambitious ſoul took moſt delight in, ſhe became ſo incenſed, that ſhe not only treated him with opprobrious language, but entered into ſecret combinations with his enemies: all which, tho' he very well knew, he forebore taking any notice of; and when Antipater wrote him a long letter, reciting the many enterprizes ſhe had engaged in againſt the tranquility of the ſtate, he read it without the leaſt emotion; and as ſoon as he had done, Antipater knows not, ſaid he, that one tear of a mother blots out a thouſand ſuch accuſations: Plut. in his life. After the firſt ages of the world, no nation retained the virtue of ſobriety like the Greeks and Romans: Lycoſt, in the theatre of humane life. And for this very reaſon, no other nations on earth could vie with them for ſtrength of body and mind, nor in any noble action whatever. The drinking wine was looked on as ſo dangerous, that the Roman ladies were forbid the uſe of it; and the better to palliate that preſcription, the ſame law permitted them to wear robes of ſilk, coronets of gold and jewels, and all other ornaments on their heads and bodies.

The Emperor Frederick, third of that name, having no child, conſulted the phyſicians, who told him, that if the Empreſs would drink wine ſhe would certainly conceive; on which he replied, that if there was no other remedy, he muſt be contented to die without an heir; for he choſe rather that ſhe ſhould remain barren, and as ſhe was, than become fruitful, and be given to drinking wine.

The ſame princeſs, being informed of what her huſband had anſwered, ſaid that if he had commanded her to die, or drink wine, ſhe would have preferred the bitterneſs of death to the ſweetneſs of that liquor: Æneas Sylvius.

Gorgo, daughter of king Cleomenes, having received orders from her father to give a reward to a man who had learned to make excellent wine, ſaid to him, I obey with an ill heart; ſince by making this wine, ſo rare, thou tempteſt man to become more delicate and leſs virtuous: Plut. in his notable ſayings of the Lacedemonians.

Cyrus, the great Perſian monarch, gave in his youth a teſtimony of that ſobriety he afterwards maintained; for, being aſked by his grandfather, Aſtyages, why he refuſed to drink wine? becauſe, anſwered he, I obſerved that yeſterday being the celebration of your nativity, none who had drank wine roſe from the table with the right uſe of their ſenſes.

Epaminondas, the greateſt general and philoſopher of his time, was ſo great a lover of temperance and frugality, that being invited to ſup at a friend's houſe, and finding the table covered with great variety of deliçates, he roſe and went away very much diſobliged, ſaying, he thought he had

been

been called to take part of a friendly repaſt, not to be treated like a glutton. Plut. in his life.

Pompey the Great always lived with great ſobriety, and gave a notable teſtimony how much he loved that virtue when on a ſick bed; for his phyſician having ordered him ſome plovers, which his ſervants ſaid were hard to be got, it not being the ſeaſon of the year for them, unleſs at Lucullus's, who kept theſe birds all the year for his own eating; he forbid them to ſend there for any; ſaying, no, Pompey ſhall not owe his life to the delicacy of an epicure; I would rather truſt to the gods for the recovery of my health than encourage voluptuouſneſs, ſuch as Lucullus's: Plut. in the life of Lucullus and of Pompey.

Galen, prince of phyſicians, doubtleſs was temperate, having paſſed all his life, which laſted an hundred and forty years, without being troubled with any indiſpoſition: Fulgos. Abſtinence is not only a virtue, but a kind of ſalutary policy, ſince there are few bodily diſorders but may be rectified, if not wholly cured by it: and as to thoſe of the mind, the effects are eaſily ſeen on it, by the debility intemperance occaſions in all its faculties: Strabo. I hope my readers will make a ſerious reflection on the laſt part of the above paragraph, it being moſt aſſuredly true; and ſorry am I, when I reflect what little regard is paid to keeping that moſt noble ſpark, the ſoul, in its greateſt vigour. Daniel and his companions avoided the voluptuouſneſs of a royal table, lived only on bread, beans, and water: Dan. i, 4. St John the Baptiſt paſſed the greateſt part of his life in the deſert, eating nothing but locuſts and wild honey: St Matthew chap. iii. Hannibal

eat the ſame proviſions with the meaneſt of his ſoldiers; Lycoſt. And where was there a greater general? Maxentius, Biſhop of Poictiers, lived on no other food but barley bread and water: Marulus. Milton had the greateſt averſion to all kinds of ſtrong liquor, and lived temperate; and notwithſtanding his blindneſs, he took bodily exerciſe: he was one of the wonders of the age in which he lived, and his works will be a laſting monument of the unparallelled greatneſs of his genius. I come now to ſay a few words in praiſe of a very good man, which is gone but as yeſterday; his conſtitution would not allow him to follow the voluptuous faſhions of the preſent times, therefore his ſoul was not debaſed by intemperance. I am ſpeaking of the late Lord Lyttleton: he was always of a tender conſtitution; and it was by the greateſt regularity and ſobriety, that his life was preſerved to the age of ſixty-four; yet his fortitude, reſignation, and piety, was that of a good man and a chriſtian; and he, in his laſt hours, ſaid, he would not change the pleaſing conſolation of a good conſcience for the poſſeſſion of the univerſe. This truly great man, it is to be hoped, will be followed by others of his rank whilſt it is time, which may be conducive to promote a reformation in the inferior claſſes of men: and let ſuch as are inclined to have a further proof of the happy effects of temperance, read the lives of the greateſt and beſt of men, and they will find that they were generally very temperate.

Luſt

LUST.

LUST not only perverts the ſenſes of a man, but is alſo a fire, which, in the end, conſumes him. It is the deſtruction of beauty, it makes the face wan and yellow, it debilitates the limbs, it occaſions gout, ſciatica, cholic, pains in the head and ſtomach, ſcorbutic humours and leproſy; in a word, it ſhortens the life, obſcures the mind, and, as Hoſea ſays, makes rotten the heart. The Locrians had a law eſtabliſhed by Seleucus, that condemned all thoſe found guilty of this vice to have their eyes plucked out, and this was ſo ſtrictly obſerved, that his own ſon being convicted, was about to be puniſhed in that manner, when all the chiefs of the people interceding for him, the noble law-giver ordered, that he ſhould be deprived of but one eye; and to ſatisfy the ſtatute, he had one of his own plucked out, chuſing rather to endure one half of the puniſhment than either infringe the law, or his ſon ſhould ſuffer the whole: Guido. bituricens. titul de amicitia. Teudeſille, King of Spain, was deprived of his life and kingdom by the huſband of a lady whom he had raviſhed. Roderigo, of Spain, was alſo ſlain by the Saracens in revenge of their monarch, whoſe daughter he had violated: Plut. in his life. Tarquin, King of Rome, was deprived of his kingdom for the rape committed by one of his ſons on Lucrece, a Roman matron; after which regal authority became ſo odious to the people, that they reſolved none ſhould ever more bear the title of King over them: they immediately converted the monarchical government into that of democracy, and aboliſhed

all

all their former laws, inſtead of which they ſent to Athens for thoſe which Solon had eſtabliſhed, and ſtrictly adhered to them, giving them the name of the laws of the twelve tables. Appius Claudius, having attempted to raviſh Virginia, the daughter of Virginius, a ſenator of Rome, the remorſeleſs father ſlew her with his own hands to ſave the diſhonour of his houſe; after which the whole decemvirate were baniſhed, and their form of government changed into the conſulary. The Emperor, Commodus, not being able to ſatisfy his immoderate luſt with three hundred concubines, whom he kept in his palace, committed inceſt with his own ſiſters as Caligula had done; the one was killed by his wife, the other ſtrangled by a courtezan. Sardanapalus, King of Babylon, was a man of ſuch inordinate luſt, that he paſſed his whole time among women, habited like them, which rendered him ſo odious to the people, that they reſolved to dethrone him: his effeminacy taking from him the power of making any vigorous oppoſition to the rebels, and deſpairing of ſafety, he ſhut himſelf up in his palace, which he had rendered impregnable, with all his concubines: fire being put to it, this miſerable monarch died in the ſhame he had lived in, and his dominions were parted among his lieutenants.

ADULTERY.

ADultery diſcovers the breaſt that harbours it, to be contaminated with more vices than uncleanneſs. Whoever wiſhes to be guilty of it, muſt be both unjuſt and cruel; ſince his aim is to rob another of what is his ſole right and property, and

and to involve him alſo in endleſs diſcontents for a moment's ſelf gratification: Seneca. Adultery deſtroys both the peace of the huſband and wife; and if their hearts have been united by love, Adultery by extinguiſhing that love, divides them for ever. He only who has loved, can conceive the pangs of this dreadful ſeparation. I will venture to affirm, that life has no enjoyment equal, at leaſt in the eſtimation of tender minds, to that of loving and being beloved. Fortune, honours, riches, and diverſions, all are names and ſhadows in compariſon of this ineſtimable felicity; and of this ineſtimable felicity we are deprived by adultery. For want of liſtening to the internal voice of nature, which inveighs againſt adultery, it is generally believed to be an excuſable gallantry, upon the credit of wretches who have wholly extinguiſhed all ſenſe of honour and virtue, by habitual debauchery, and who inſtead of bluſhing at this horrid enormity, glory in the commiſſion of it. But pirates and banditti glory alſo in their violence and rapine, and a grenadier becomes a raviſher without remorſe in a town taken by ſtorm: are we then to determine the turpitude of a particular crime by the opinion of the criminal? The inhabitants of Sparta were formerly ſo uncorrupted with the ſin of adultery, that they did not ſo much as know what it was. For the proof of which may be alledged, the anſwer a Spartan, named Geradus, made to a ſtranger, who aſked him what puniſhment was inflicted on thoſe who were ſurpriſed in adultery; friend, ſaid he, there is no ſuch thing: but ſuppoſing there was, reſumed the ſtranger, then, ſuch an offender, replied he, would be liable to purchaſe a bull of ſo prepoſterous a ſize, that,

mounted

mounted on his back, he might diſcover the mountain of Tauget in the river Eurotas. But ſaid the other it would be impoſſible to find a bull of ſo monſtrous a bigneſs; ſo would it be equally impoſſible, returned Geradus, ſmiling, to find an adulterer in Sparta: Plut. in the life of Lycurgus. Rapes, adultery, &c. we find are monſtrous crimes, which crimes are, in general, the effects of intemperance. How diligently then ought people of all degrees to guard againſt ſuch an abominable evil?

TYRANNY.

DENIS, the younger, tyrant of Syracuſe, being baniſhed his country, retired to the city of Corinth, where he lived in a very private manner: he was one day met in the ſtreet by Diogenes, who accoſted him, ſaying, truly Denis, thou art in a condition unworthy of thee. The tyrant ſtopped at theſe words, and replied, I am obliged to thee, that thou haſt pity on my miſerable fortune. On which the philoſopher looked on him with a ſcornful ſmile, and reſumed, thou deceiveſt thyſelf to imagine I can feel compaſſion for a wretch, ſuch as thou art; no, I have rather ſpite, that thou diedſt not as thy father did, in the curſed ſtate of tyranny, and not live here in liberty and ſecurity, among honeſt people.

Democles, one of the familiars of Denis the tyrant, having ſaid to him, that he was now arrived at perfect happineſs, and that he did not think there was a wiſh which his ſoul could form beyond what he enjoyed: wilt thou, ſaid Denis, aſſume my place for one day? I will lend thee my power, and cauſe thee to be in every thing

like

like what I am; then thou mayeſt be the better judge how infinite is my happineſs. Democles willingly conſented, and he was ſerved, honoured, and obeyed as a King; his body was cloathed in purple, a crown of gold and diamonds adorned his head; his table was covered with meats, the moſt exquiſite that could be purchaſed; the richeſt perfumes regaled his noſtrils, and the moſt harmonious muſic his ears; but amidſt all this profuſion of delights, a ſword hung over his head, kept from falling but by a ſingle thread, whilſt the terror of its breaking kept him from regarding either the muſic, the perfumes, the meats or any of thoſe temptations to ſenſe: he was glad to make a ſhort dinner, and to ſend to intreat Denis, that he might return again to his own ſtate; which when Denis perceived, behold now, ſaid he, how little that can be called happineſs which is attended with perpetual danger: Barton. A modern author ſpeaks thus of perſecutions: the friends of virtue are not jealous rivals, who mutually endeavour to deſtroy each other; on the contrary, nothing gives a man a more ſenſible pleaſure than to ſee their number increaſe. It is from the enemies of virtue only, that injuries are to be feared; and as theſe injuries are inevitable evils, they ought to be expected with temper, and ſuſtained with conſtancy. If we form our ideas of happineſs from popular opinion, it is ſo far from being neceſſarily connected with virtue, that they are ſcarce ever united: wealth, titles, elevated ſtations, and temporal dominion, are not her inheritance. She is an orphan abandoned, unknown, deſtitute of friends, without a portion: her beauty, from time to time, makes a few con-

conqueſts; but the love which is kindled by her perſon is commonly extinguiſhed by her indigence: and there is yet another reaſon why her lovers are ſo few, the avenues to her dwelling are fenced up with briars and thorns, and guarded by evil genii, who keep off thoſe that approach it; ſome by threatnings, others by promiſes; ſome by open force, and ſome by ſtratagem and cunning. There is, however, one circumſtance which ought to encourage the lovers of virtue and teach them perſeverance, they are ſecure of conqueſt if their paſſion is ſincere. To love virtue is to poſſeſs her; ſhe eſcapes from thoſe alone who betray her by inconſtancy or weakneſs: and by thoſe who love her, ſhe can never be betrayed. Nor are there any who become unfaithful to virtue, but through a fond attachment to ſome fallacious good, which ſhe either with-holds or takes away, ſuch as indolence, eaſe, the pomp of life, and the favour of the great. But to prefer to virtue, or even to put in competition with her, any temporal advantage, the mitre, the tiara, or the regal diadem itſelf is more than not to love her, it is not to know her. To put air and ſmoke, and tinſel in competition with virtue: what an injury? what an inſult? But to give theſe the preference, what a horrid profanation? The vicious, who are the majority, are the governing part of the world, have never dared publicly to ſtigmatize virtue, nor do they oppoſe her under that name. To juſtify their proſecutions, they give her odious appellations, pretend not to know her, and canonize vice diſguiſed in her ornaments and apparel. They call integrity and fair dealing, puerile ſimplicity; the forgiveneſs of injuries, cowardice;

prudent

prudent circumſpection, pedantic gravity; the contempt of gold, folly; and generoſity, weakneſs. Ambition, on the contrary, is, in their language, tranſformed into noble emulation; cunning and fraud are induſtry and addreſs; bigotted hypocriſy takes the name of piety; knaviſh chicanery, that of refined policy; falſe pretences, ſubtle evaſions, and diſſimulation, are maſter-pieces of prudence; tranſports of paſſion are vivacity; pride, dignity of ſentiment; thirſt of revenge, an indiſpenſable point of honour; and ferocity, courage. The encomiums of theſe wretches are inſults; endeavour, therefore, to render yourſelf unworthy of them. Their favours are poiſoned; be careful not to merit them, for they cannot be obtained, but at the expence of virtue. When we are deliberating on an enterprize which we may either attempt or relinquiſh, as ſhall appear moſt eligible, it is not only allowable but neceſſary to weigh all the diſadvantageous circumſtances which may attend the execution: but we muſt not ſuppoſe there are any ſuch circumſtances, when the work before us is a duty: a ſoldier is commanded to mount the breach; it is not his buſineſs to examine the riſque he runs, but to march forward without deliberation, although his death appears to be inevitable; for the word of command is not conditional. In the ſame manner let us march under the ſtandard of virtue, without reflecting on the danger to which we may be expoſed, which, if it is an evil, ought to be conſidered as inevitable, becauſe it cannot be ſhunned but by breach of faith, and to be weary of ſuffering for virtue is to make great approaches to vice. Is your reputation ſullied by invidious

calumnies? Rejoice that your character cannot ſuffer by the falſe imputations you are arraigned for in a court of judicature, and are unjuſtly condemned; paſſion has influenced both your proſecutor and your judge, and you cannot forbear repining that you ſuffer although innocent. But would it have been better that you ſhould have ſuffered being guilty? Would the greateſt misfortune that can befal a virtuous man be to you a conſolation? Or would your ſuffering be alleviated by the addition of remorſe? The opulence of a villain, the elevated ſtation to which he is raiſed and the honours that are paid to him exite your jealouſy, and fill your boſom with repinings and regret. What ſay you, are riches, dignity, and power reſerved for ſuch wretches as theſe? Ceaſe theſe groundleſs murmurs. If the poſſeſſions which you regret are real benefits, they would be taken from the wicked and transferred to you. What would you ſay of a ſucceſsful hero, of a Vendome or a Maurice, who after having delivered his country ſhall complain that his ſervices were ill requited, becauſe a few ſugar plumbs were diſtributed to ſome children in his preſence, of which they had not offered him a ſhare. Ridiculous as this would appear your complaints are not better founded. "Has the Lord of all "no reward to confer upon you but periſhable "riches and empty precarious honour." Intemperance may juſtly be ſtyled the firſt cauſe of tyranny and perſecutions as well as of other evils.

WAR

W A R.

WAR brings with it an infinite number of misfortunes: extortion and injuſtice are its fore-runners, and cruelty and violence are its companions.

All ſorts of diſorders are introduced by it; poverty and wretchedneſs are its conſequences, and thoſe who delight moſt in it grow often weary of it, but find it much more eaſy to begin than to end it. "In time of war," ſays Pliny, "juſtice and humanity are ſet aſide, and rapine "reigns; luxury is ſet at liberty, the moſt im- "pious are in authority, the virtuous are op- "preſſed, innocence is deſtroyed, virgins and "matrons are violated, countries laid waſte, "houſes burned, temples demoliſhed, ſepulchres "of the dead eraſed; all manner of crimes are "committed with impunity, murders, parricides, "rapes, inceſt, ſacrilege, are regarded but as "common actions; all laws both human and "divine are trampled on, and man ſeems to be go- "verned by no other precept than his own voraci- "ous and unbounded will." Phocion, that great general of the Athenians, did all he could to hinder them from declaring war againſt the Macedonians; and when ſome, who diſſented from him in opinion, aſked him when he would have them make war; when the young men, he ſaid, ſhall become grave and deliberate, when the rich ſhall voluntarily contribute to relieve the neceſſities of the poor, and when the orators ſhall refrain ſpeaking in public: theſe being all things he believed not likely to come to paſs. Plut. in

his life. The Emperor Auguſtus ſaid, that to render war a benefit, it ought to be commanded by the Gods, and juſtified by the philoſophers.

Ælius Spartanus ſaid, that Trajan was the only Roman monarch who had never been defeated; the reaſon of which was, that he never undertook a war without a juſtifiable cauſe.

DUELLING.

SCIPIO Africanus and Metellus were known to be men of the greateſt courage, yet would they never fight in a ſingle combat; ſaying, it became a general to die as a general, and not as a private man. Theophraſtus maintained, that he who loſt his life in a duel, robbed his country of what he had no right to diſpoſe of. Plut. in the life of Sertorius. Mark Anthony, having challenged Auguſtus Cæſar, received for anſwer, that his life was of too much conſequence to his ſubjects to hazard it inglorioufly. Plut. in the life of Anthony. The Greeks and Romans, who were, by turns, the conquerors and the legiſlators of the world, certainly well knew what was valour; but did they make murder a ſport, and wantonly deſtroy each other? They hung up the ſword, the bow, and the ſhield, as inſtruments wholly uſeleſs in time of peace.

PRIDE.

PRIDE is the deteſtation of God and man, and is of itſelf ſufficient to turn the beſt things into wickedneſs. Diocleſian, the Emperor, made himſelf be called the brother of the ſun and moon;

but

but was afterwards aſhamed of his preſumption, and became the humbleſt of mankind. Menacrates, perceiving Philip of Macedon to be falling into this vice, made him ſee his error by a pleaſant ſtratagem; he invited him and his whole court to a feaſt, where were ſeveral tables for the nobility, all covered with the moſt excellent viands; but that for the King was ſerved only with incenſe, which he aſked the meaning of. If thou art a God ſaid Menacrates, as thou thinkeſt thyſelf, this is the only food thou canſt be treated with. Theſe words this excellent Prince was ſo far from being offended at, that he ever after looked on the ſpeaker of them, as his beſt friend; and from that moment threw off all pride and vain-glory: Ælian. The pride of this world is generally turned into contempt: thoſe who, for ſome time, are idolized, are in the end derided. Even Alexander the Great, though worſhiped as a God while living, was denied human rights when dead, his body lying unburied for thirty days: Ælian. Demoſthenes obſerves that nothing obſcures the luſture of good actions ſo much as pride, nor renders ill ones ſo notorious.

REVENGE.

TO take vengeance for an injury, ſays an ancient, is robbing Heaven of its prerogative; and, as all created beings are under the direction of one Providence, to that alone we muſt truſt. If I revenge myſelf, ſaid Cato, the Gods will puniſh me, becauſe injuries done to me are directed by them, in the violation of their laws, and to them it belongs to aſſert their power, and vindicate their

creature. The naturaliſts remark that a lion never falls on any creature whom he finds incapable of reſiſtance; he ſeems to think it beneath him to encounter one who is weak. How much leſs then ought man to make uſe of that power, which chance or ſuperior ſtrength may give him, to the hurt of one of his own ſpecies. 'Tis obſervable, to the great diſgrace of humanity, that man is the only creature who wants pity for thoſe of his own ſpecies. Bears, wolves, tigers, dogs, and even cats, will courageouſly defend each other when aſſaulted, and loſe their very lives in vindication of their own kind: man fights with man, and for hire combats his own likeneſs.

INGRATITUDE.

AMONG the many excellent laws which Draco eſtabliſhed in Athens, the puniſhment of ingratitude was with death. Alexander the Great, was the moſt liberal Prince in his time, Julius Cæſar the moſt forgiving; yet would one never give any thing to an ungrateful perſon, nor the other pardon him if at any time found guilty. Pyrrhus regretted beyond meaſure the death of one who had been his faithful friend; not, ſaid he, but I have philoſophy enough to enable me to ſupport the news of what is common to all, who are of human nature; but I am grieved to the ſoul to think I have no longer the power of relating the good office I have received from him. The ſame Pyrrhus being advertiſed by the Romans of ſome treaſon practiſed againſt him; as a gratification for that intelligence, returned them a great number of priſoners without ranſom. Plut. in his life.

life. Cicericus, who had been ſecretary to the great Scipio, finding the ſon of that deceaſed hero, to be competitor with him for the prætorſhip, was ſo fearful of appearing ungrateful to the memory of him, to whom he was ſo much obliged, that he plucked off the white robe, worn by thoſe who claim the magiſtracy, and became a ſolicitor for the young Scipio. An Arabian by birth, and by religion a Turk, had yet as much gratitude, that being general of the infidels againſt Bodowin, King of Jeruſalem, and having entirely defeated him at a pitched battle, remembered that Prince had formerly treated handſomely, and ſent home his wife, when a captive; and therefore went in the night to a little city, where he heard he was fled in private, and conducted him to a place where he might be in ſecurity, knowing the Turks had a deſign to go thither and murder him.

None had a greater ſenſe of gratitude than the old Romans; they erected a ſtatue to Horatius Cocles for defending the bridge; they gave an inheritance of great value to Mutius Scævola for having decamped Porcenas, when he beſieged their city; they built a temple to the honour of thoſe women who had appeaſed the fury of Coriolanus; and in fine they left no memorable action unrewarded.

QUARRELS.

PRIVATE quarrels are as ſhameful as public ones, are dangerous to a common wealth; and if it be diſhonourable to be accounted a coward, it is no leſs ſo, in the opinion of the truly brave and wiſe, to be too ready to draw the ſword

on

on every trifling occaſion. None can be too forward in vindicating the honour of religion or their country; none too backward when neither of theſe are concerned. Demaratus obſerves that there are a ſort of people who take delight in quarrels; and theſe he ſays are, of all fools, the moſt contemptible, and beneath the notice of a man of honour; from ſuch it is better to bear an affront than reſent it.

GAMING.

CHILON being ſent from the Lacedemonians to Corinth, to treat of an alliance between the two nations, found the Governors playing at dice; upon which he returned without delivering his meſſage, ſaying it would be very inglorious for the Spartans to hold ſociety with gameſters: Plut. in his notable ſayings. It was the opinion of the ancients, that nothing diſcovered an avaricious mind more than the love of gaming; and that eagerneſs with which the moderns engage in it, the tranſports they are in at a lucky hit, and the diſcontents enſuing upon a contrary one, prove, but too evidently, that aſſertion to be juſt. Seneca maintains, that nothing is more impolitic than public gaming; and that with reaſon, for could a ſtateſman ſee himſelf in thoſe antick geſtures, which his good or ill fortune at play puts him in, or a fine lady the diſtortion of thoſe features, ſhe has perhaps all the morning been endeavouring in her glaſs to compoſe; the one would tremble at the little regard that would hereafter be paid to his counſels, and the other for the loſs of her conqueſts, and reputation of beauty.

INJUSTICE.

THERE is nothing more grievous to good men than to ſee villany ſupported; and nothing more emboldens the wicked than the belief that they may perſiſt with impunity. Demetrius having received many petitions from his ſubjects, threw them into the water, as he paſſed over the bridge of a certain river, which made the people conceive ſo implacable a hatred to him, that his whole army forſook him; and, going over to Pyrrhus, chaced him from his dominions, without the leaſt ſkirmiſh or blood ſhed.

JUSTICE.

THE Emperor Aurelian was ſo fearful of bringing any perſon into the judicature, who ſhould be unworthy of it, that he would never give the dignity of ſenator to any, without the approbation of the whole ſenate. Trajan being on horſeback at the head of his army, ready to begin their march, jumped off and ſtood a conſiderable time on foot, to liſten to the complaints of a poor woman. A poor woman addreſſed herſelf to Philip of Macedon; he told her he had not leiſure to hear her; on which ſhe cried out, with a loud voice, why then haſt thou leiſure to be a King? Theſe words gave him ſo lively an idea of the duties of that ſtate, that he immediately returned to his palace, and gave ſeveral days to hearing the complaints of the meaneſt of his ſubjects; beginning firſt with the poor woman: Plut. in the continuation of his life.

life. The Emperor Trajan, having made choice of a man of great probity for general of his army, he preſented him with a rich ſword, ſaying to him, at the ſame time, I charge thee to employ this in my ſervice, while I am Emperor; that is while I do the duties of one, and when I fail in them to turn the point upon me: Dion. in the life of Trajan. Cleon, the Lacedemonian, being choſe judge of civil affairs, ſent for all thoſe with whom he had contracted any friendſhip, telling them he muſt now renounce all intimacy with them; for particular friendſhip bias'd the mind, and left it not the liberty to execute juſtice: Plut. in his treatiſe of inſtructions to thoſe who manage public affairs. Harpagus entreated Philip of Macedon that his father, being convicted of great crimes, might pay the penalty, which the law inflicted, in private, and be ſpared the ſhame of a public ſentence; but Philip told him it was better for him who committed the faults to bear the diſhonour of them, than that the King ſhould bear it for him. The Romans, whilſt they continued temperate, were the moſt ſtrictly juſt of any people in the world. Brutus put to death his two ſons for having tranſgreſſed the laws, to ſhew he regarded only the merits of thoſe he judged: Plut. in the life of Publicola.

F A I T H.

THE great and illuſtrious perſons of antiquity thought no virtue more commendable than a ſtrict obſervance of their word; they looked on it as the firſt foundation of juſtice, the bond of amity and the chief ſupport of ſociety. There is nothing

nothing in which a wiſe man is more diſtinguiſhed from a fool than by his promiſes. The indiſcreet make them lightly, and as often as they are demanded; the man of judgment conſults within himſelf, before he enters into any engagement. The one forgets immediately what he has ſaid; the other, having once made you depend upon him, will never revolt, what loſs or detriment ſoever it may happen to be to him. Attilius Regulus, a noble Roman, being taken priſoner in the Carthagenian war, and ſent to Rome on his word of honour to return, in order to treat of peace, and the exchange of priſoners, being arrived, he told the ſenate that it was not for the intereſt of the republic to accord to the demands of the Carthagenians; which being reported at his return, he was put to a cruel death, tho' no more than he expected, and made choice of that rather than break the faith given to them, by not reſtoring them their priſoner: Cicero.

FORTITUDE.

DEATH which terrifies the boldeſt, made not Seneca the philoſopher change countenance; he beheld, with ſteadfaſt eye, his blood and life guſh out together; and neither endeavoured to move the pity of the tyrant nor exclaimed againſt his cruelty. Alcibiades heard the ſentence of his death pronounced, without appearing the leaſt ſhocked at it. 'Tis I, ſaid he, who leave the Athenians condemned to death; not they who have paſſed that doom on me. When I forſake this world, continued he, I go to find the Gods, with whom I ſhall live to all eternity; they ſtay among

among men, ſubject to death. Cræſus, King of Lydia, being deprived of his eſtates, and priſoner to Cyrus, made known his virtue and fortitude more than ever he could have done in an uninterrupted courſe of proſperity; and for this it was that Solon thought him moſt happy. When he was condemned to death, by the rage of his conqueror, he remembered the diſcourſe he had heard from the mouth of Solon, concerning the little dependance there was on human felicity, and adding to it, that no man ought to be termed happy, until the laſt of his life had proved him ſo; he cried out three times, at the place intended for execution, oh Solon! Solon! Solon! great is thy wiſdom; which reaching the ears of Cyrus, he ordered he ſhould be brought before him, and then aſked the occaſion of his calling on Solon. This demand obliged Cræſus to repeat the advantages he had received from the advice of that philoſopher; which had ſo great an effect on the generous diſpoſition of Cyrus, that the hate he had born his priſoner was now converted into admiration; he reſtored him to his liberty and throne, and held him ever after as the deareſt of his friends: Herodotus. Publius Rutilius, being unjuſtly baniſhed, never changed his countenance nor his manner of living, nor ever ſolicited the Senate to recal him; but paſſed the remainder of his days with the ſame grandeur and chearfulneſs as before, ſhewing himſelf not in the leaſt troubled nor enraged at the alteration of his condition. Val. Max.

VICE.

VICE.

AS virtue, ſays Plato, is the health of a ſtrong and vigorous mind, ſo vice is the diſeaſe of a weak and imperfect one; and 'tis the habitude which renders either of a piece with the ſoul, and becomes a kind of ſecond nature. Chryſippus, a ſtoick philoſopher, calls vice the eſſence of unhappineſs; the guilty are ever anxious, fearful and full of perturbations; remorſe, and a too late repentance, gnaw perpetually on the ſoul, diſtract the brain, and bring on horrors nameleſs, numberleſs, and eternal.

Bias ſays, that the man who is a ſlave to vice labours under the worſt captivity; becauſe bodily chains may be broken, but thoſe of the mind are not worn off, but with the moſt terrible efforts; and even then, too frequently leave marks behind, which are never to be eraſed. According to Demoſthenes, a man cannot juſtly be called vicious becauſe he has been guilty of ſome faults, nor a man free from vice becauſe he has eſcaped them. Circumſtances make a vaſt alteration in the very facts themſelves; and a mind, the moſt free from corruption, may, thro' inadvertency or the prevalence of temptation, fall into thoſe very errors it naturally moſt abhors.

VIRTUE.

CICERO ſays virtue is the foundation of amity, it both gains and ſecures the hearts of men, L. 1. Nat. Deor. Socrates maintains, that the higheſt virtue is the hate of voluptuouſneſs, which he

calls the mother of all other vices. 'Twas for this reaſon, that the Athenians made all their feaſts by night, as being aſhamed the ſun ſhould be witneſs of their follies. That is true which enables us to reſiſt the temptation of the moſt enchanting pleaſures, when we would give our very lives for the enjoyment of any thing which our deſires are ſet on, yet refrain it when in our power, merely becauſe it is an offence to virtue. Seneca maintains that the victory we get over our paſſions is the moſt difficult, and therefore the moſt noble of any. It is obſervable, that the Romans never triumphed over others till they had learned how to triumph over themſelves.

MAGNANIMITY.

THE Numantians having been beſieged by the Romans for fourteen years, and at laſt ſo environed by the forces of Scipio, that they had no poſſibility of receiving relief, thought of nothing but to die with the ſame honour they had lived. That noble Roman, perceiving the magnanimity of thoſe people, offered them terms, which might have been accepted by ſouls leſs tenacious of their liberty; but, inſtead of returning an anſwer of compliance, they ſent him word, that as they had, for the ſpace of three hundred and thirty-eight years, been exempted from tribute, nor acknowledged any other nation as ſuperior to them, they would at laſt die free and maſters of themſelves. They had no ſooner diſpatched the Roman herald with this meſſage, than after having taken a ſolemn leave of each other, and recommended their ſouls to the mercy of Heaven, each man took a torch and ſet fire to his

own

own dwelling, and consumed himself and all he had, leaving Scipio neither treasure to plunder, nor man nor woman to triumph over; which occasioned him, bewailing their destruction, to say happy, happy Numantia, which the gods intended to put an end to, but never would permit to be overcome. Fabricius, Consul of Rome, discovered a noble magnanimity of soul, in his behaviour to King Pyrrhus; for, being offered by the physician of that Monarch to put an end to their war by poisoning his master, he sent immediately to acquaint him with it, telling him he made as ill a choice of his friends as enemies; for he made war on men who were naturally brave and generous; and put confidence in those who were wicked and disloyal. I let you know the intended treason, said he, in his letter, not to court your friendship, but to clear the Romans from all imputation of encouraging it; 'tis by our own virtue, and not by the faults of others, that we wish to conquer.

Nothing could be more praise-worthy than the conduct of Camillus, a Roman dictator, who having laid close siege to the city of Phaleria; a certain preceptor, who had the greatest part of the children of the nobility under his care, went and delivered them all into the hands of the Roman general; telling him the Phalerians would consent to any terms, rather than suffer those dear hostages to be ill treated; but Camillus disdained the treachery, ordered the wicked preceptor to be stript naked; and, with his hands tied behind him, sent into the town, giving a lash into the hand of every one of his pupils, to whip him as he went. This generous action had such an effect on the

citizens, that they immediately ſubmitted themſelves, confeſſing that the Roman virtue merited to command the world: Plut. in his life. Now by the foregoing examples of the ancient heathens, who walked in darkneſs, being deſtitute of the knowledge both of the old law and the goſpel, we may learn that, even in their days, temperance and virtue walked hand in hand; and that intemperance and vice were the inſeparable companions of each other. Is it not ſtrange then, that the heathen Romans ſhould, for ſo many ages, delight and glory in the practice of temperance; and that we, on the contrary, ſhould delight and greatly glory in intemperance of all kinds; when we have the moſt dreadful woes denounced by God himſelf againſt the intemperate? a temperate man, who alone retains the right uſe of his reaſon, is ſhocked at the growing power of this hideous monſter, this mother of vice; and which, as I have ſaid before, is the cauſe of almoſt every evil. But a man who is already under its dominion is bewildered, the vigour of his ſoul is impaired and itſelf abaſed; all his reflections are weak, and, if he ſees himſelf going in a wrong path, he has now no reſolution ſufficient to make a retreat. How pitiable a ſtate is this, and yet how true? There is a certain neighbouring idolatrous nation, under the influence of the weſtern antichriſt, which hath been labouring with all her art to undo this iſland, for upwards of a century; and her method of introducing luxury and effeminacy hath weakened us not a little; of which ſhe is well apprized, and now being in general effeminate and, as one may ſay, weak in judgment, we run eagerly amongſt them, to fetch home any ridiculous faſhion or cuſ-

tom they pleaſe to ſhew us; and, when once it is arrived, it ſoon reaches every corner of the land: the nation I am ſpeaking of is under what ſome pleaſe to call tyrannical government. Now tyranny is prohibited from being imported hither, for very ſubſtantial reaſons; but then ſo many of our weak brethren are making long ſtays there, who have their bodies ſo relaxed, and conſequently their pores ſo open, that they have imbibed the infection and ſmuggled it, in ſpite of the ſtricteſt ſearch. It is a kind of plague, and is moſtly uſed by thoſe whom the world pleaſe to call the great, to puniſh their inferiors. If one were to judge from appearances, one might imagine that there are ſome ſo weak, in the above claſs, as to wiſh government to employ it; but all wiſe governments know better. Do but read the Old Teſtament, and there you may find what is to be the portion of Princes, who uſe ſuch a ſcourge; if even the people deſerve chaſtiſement from the hand of providence. Bad faſhions are never encouraged by any but intemperate people, of weak underſtandings; and they are of this ſort, who are proud, ambitious, avaricious, &c. There are a number of labouring people, many of whom come the neareſt temperance of any rank upon the iſland; eſpecially thoſe who labour without doors; now had theſe people only a ſufficiency to ſupport themſelves and families, ſcarce any other rank upon the iſland would be more happy. Tradeſmen and manufacturers have always been ſaid to be the ſupport of the nation; but alas, whither are that uſeful ſet ōf people now wandering; or I may ſay, what a wretched condition is this country now driven into, through the horrid effects of intem-

perance of all kinds, and the above named cauſes. There is now no other means left, to ſave this ſinking ſtate from general ruin and general diſeaſe but the ſubſtituting temperance inſtead of intemperance; and it may be depended on, that, as temperance gains ground, its companion, virtue, will again ſhine forth; and the more temperate we become, the more beautiful and attracting will her ſplendour be. When temperance is once eſtabliſhed, humanity will cauſe the murmurings and repinings of the poor to ceaſe; and unity and concord will, in a great meaſure, abound. But ſome will ſay that they are the drunkards, the diſſolute, intemperate, &c. who raiſe a large part of the revenue; and others may ſay we have lived in good repute, and kept ourſelves in a genteel way of life, by ſupplying ſuch people with what they wanted; and, if temperance be encouraged, what ſhall we do? I may, for the preſent, ſay, were the people once reformed, their conſtitutions would become vigorous, the eyes of their underſtanding enlightened, and trade would become much more extenſive, and greatly increaſed; there would likewiſe be a great increaſe of people (which are the riches of every trading nation) and plenty of all the neceſſaries of life, within the reach of the loweſt mechanic; and the revenue might, without the leaſt doubt, be increaſed, far beyond any thing we have hitherto ſeen, without being burthenſome to any one. As to thoſe who have lived by the intemperate, let them not doubt but that a reformation will be to their final comfort. There is a numerous claſs of intemperate people, who deſerve the moſt ſevere reprehenſion; I

mean

mean thoſe who have wives and children to ſupport, but inſtead thereof, wantonly ſpend one-third or one half, nay ſome of them three-fourths of their wages, and have wives and children half ſtarved. Thoſe men are the real ſcum of the earth. How are thoſe wretches loſt in intemperance? Are they not ſunk far below the brute creation? Such men are not only deſtroying themſelves, but likewiſe every other thing which ought to have been the moſt dear to them. Behold a ſenſeleſs brute, in the midſt of his debauch, wallowing in his own dirt. See him belching out, alternately, oaths, and the drench he has but now ſwallowed; view his doleful habitation, and obſerve the ſcene of diſtreſs here, a ſet of meager, ſickly, dirty, ragged children, crying for bread; and there the mother ſtanding, trembling and crying, in the very anguiſh of her ſoul (her countenance beſpeaks it) having neither bread in the houſe, nor credit without doors, nor dares ſhe approach the ungrateful monſter and tyrant of the family, her huſband, either to ſolicit his return home, or aſk for money to purchaſe bread with; there being a cuſtom among jovial companions which forbids the approach of their wives at ſuch times. It is from ſuch unreaſonable and contemptible traſh as theſe that the community ſuffers moſt ſeverely, notwithſtanding they may ſomewhat increaſe the revenue. They who are thus far advanced in vice are too often ripe for almoſt all manner of crimes; and I know of ſcarce any one ſet of men, in low circumſtances, more hurtful to the well being of mankind, except thoſe unreflecting and ſtupid people who do ſtill inſiſt upon voting for men who will give the moſt money, or

fairеſt

faireſt promiſes, without ſo much as ever endeavouring to learn whether ſuch men are virtuous, or whether they be ſeriouſly inclined for the general good of the ſtate. It is this intemperate and conſequently unreflecting and ſhort ſighted claſs of people which threatens to be the greateſt ſcourge of the ſtate. And their crimes can only be obliterated by a reformation and ſincere repentance; but no ſincere repentance can be made by any mortal for any one crime whilſt he continues intemperate. To give the young Lacedemonians a reliſh for ſobriety, ſlaves were expoſed before them who had been made drunk on purpoſe; and this ſpectacle, which exhibited a faithful and ſtriking picture of the infamous brutality, which is the effect of drunkenneſs, made a deep and laſting impreſſion upon their minds. We are not reduced to the neceſſity of having recourſe to this expedient; we have no need to make our ſervants drink, to give leſſons of temperance to our children; many of our countrymen, of all ranks, very willingly take upon themſelves to perform the office of the ſlaves of Sparta; and ſome perhaps, who have preached againſt intemperance in the morning, will generouſly illuſtrate their doctrine at night, by exhibiting in perſon an inſtance of the abſurdity and brutality, which are the effects of the vice againſt which they have declaimed.

If nothing were neceſſary to inculcate temperance but the practice of the contrary vice, we ſhould not want precepts. Dr Buchan very juſtly repreſents the fatal conſequences of intoxicating liquors as follow: "Every act of intoxica-
"tion puts nature to the expence of a fever,

"in

" in order to diſcharge the ſuperfluous load;
" but, when that is repeated almoſt every day,
" it is very eaſy to foreſee the conſequences. That
" conſtitution muſt be ſtrong indeed, which is
" able long to hold out under a daily fever:
" but fevers occaſioned by drinking do not al-
" ways go off in a day; they frequently end in
" an inflammation of the breaſt, liver or brain,
" and produce fatal effects. Tho' the drunkard
" ſhould not fall by an acute diſeaſe, he ſeldom
" eſcapes thoſe of a chronic nature. Intoxicating
" liquors, when uſed to exceſs, weaken the bowels
" and ſpoil the digeſtion; they deſtroy the power
" of the nerves and occaſion paralytic and con-
" vulſive diſorders; they heat and inflame the
" blood, deſtroy its balſamic quality, render it
" unfit for circulation, and the nouriſhment of
" the parts, &c. Hence obſtructions, atrophies,
" dropſies, and conſumptions of the lungs. Theſe
" are the common ways in which drunkards
" make their exit. Diſeaſes of this kind, when
" brought on by hard drinking, ſeldom admit
" of a cure. Many people injure their health by
" drinking who ſeldom get drunk. The con-
" tinual habit of ſoaking, as it is called, though
" its effects be not ſo violent, is no leſs perni-
" cious. When the veſſels are kept continually
" full and upon the ſtretch, the different di-
" geſtions can neither be duly performed nor
" the humours properly prepared. Hence moſt
" people of this character are afflicted with the
" gout, the gravel, ulcerous ſores in the legs,
" &c. If theſe diſorders do not appear, they
" are ſeized with low ſpirits, hypochondraical
" diſorders and other ſymptoms of indigeſtion.

" All

" All intoxicating liquors may be conſidered as
" poiſons; however diſguiſed, that is their real
" character, and ſooner or later they will have
" their effect. Conſumptions are now ſo com-
" mon, that it is thought one-tenth of the in-
" habitants of great towns die of that diſeaſe.
" Drunkenneſs is one of the cauſes to which we
" muſt impute the increaſe of conſumptions.
" The great quantities of viſcid malt-liquor,
" drank by the common people of England,
" cannot fail to render the blood fizy and unfit
" for circulation; from whence proceed obſtruc-
" tions and inflammations of the lungs. There
" are few great ale drinkers who are not phthiſi-
" cal; nor is this to be wondred at, conſidering
" the glutinous and almoſt indigeſtible nature
" of ſtrong ale. Thoſe who drink ardent ſpirits
" or ſtrong wines do not run leſs hazard; theſe
" liquors heat and inflame the blood, and tear
" the tender veſſels of the lungs in pieces. No
" man is ſo dejected as the drunkard, when his
" debauch is gone off; hence it is, that thoſe
" who have the greateſt flow of ſpirits, while
" the glaſs circulates freely, are of all others the
" moſt melancholy when ſober; and often put
" an end to their own miſerable exiſtence in a
" fit of ſpleen or ill humour. Drunkenneſs not
" only proves deſtructive to health, but likewiſe
" to the faculties of the mind. It is ſtrange,
" that creatures who value themſelves, on ac-
" count of a ſuperior degree of reaſon to that
" of the brutes, ſhould take pleaſure in ſinking
" ſo far below them. Were ſuch as voluntarily
" deprive themſelves of the uſe of reaſon to
" continue ever after in that condition, it would
" ſeem

" ſeem but a juſt puniſhment. Though that be " not the conſequence of one act of drunkenneſs, " it ſeldom fails to ſucceed a courſe of intoxica- " tion. By a habit of drinking, the greateſt " genius is often reduced to a mere dunce." Health is that conſtitution of the body in which the breath of life that animates it acts with the greateſt energy. To impair health is to diminiſh life; a man is leſs and leſs alive in proportion as his health declines, and when it is totally deſtroyed he dies. The ſame law which reſtrains us from putting an end to our own lives, forbids us alſo voluntarily to deſtroy our health. From theſe principles it follows, that voluntarily to deſtroy health, in what ever manner, is to infringe the law of nature, which enjoins its preſervation. Sobriety therefore, like all other virtues, is the mean between two oppoſite extremes. To deſtroy the conſtitution by exceſſive abſtinence is not a leſs culpable exceſs, than to ſhorten life by intemperate eating and drinking, &c. Is he who takes a ſlow poiſon leſs a ſelf murderer than a more reſolute wretch who ſtabs himſelf? As this criminal is condemned without heſitation, why ſhould the other be acquitted? If it be diſputed whether ſuicide be contrary to the law of nature, it will not be difficult to prove it. This law does not require us to treat other perſons better than we treat ourſelves; and it is generally agreed, that we are forbidden to take away the life of others, at leaſt by our own private authority, much leſs therefore are we allowed to take away our own. We continue to live doubtleſs only becauſe it is the will of God we ſhould not yet die, and God wills nothing

thing with reſpect to us, which has not a direct tendency to our happineſs, this being the ultimate end of our creation; to become our own murderers, therefore, is to counterwork his purpoſe, and not only to neglect, but to renounce the felicity which he intended us. What but intemperance, or what is the ſame thing, an improper uſe of the non-naturals, hath been the hideous and calamitous cauſe of ſo many horrid and deteſtable modern wars in Europe.

Auguſtus and Trajan, monarchs of immortal glory, were ſtrictly temperate, and by that means retained their reaſon; therefore they made it their greateſt pleaſure to comply and ſave mankind. But Tiberius, Sylla, Caligula, and Nero were intemperate, and therefore weak-headed; conſequently they were proud, ambitious, avaricious, &c. It was therefore the greateſt pleaſure of theſe four monſters to command and deſtroy, which hath brought an everlaſting odium on their names in this world; but that is not the worſt conſequence to them; notwithſtanding they were heathens, they had the law of nature to walk by, which they with the greateſt brutality infringed, perpetrating with pleaſure the moſt barbarous crimes, upon the bodies of thouſands of their fellow creatures. I want words to expreſs the abhorrence which all reaſonable men muſt have of the modern wars amongſt the chriſtians; eſpecially when one reflects that they have, in general, been promoted by thoſe very men who pretend to be the ſupreme head of the chriſtian church. Could any thing but inactivity or other kinds of intemperance have brought men of learning to ſuch a ſtupendous and enormous

degree

degree of barbarity and flagitious hyprocriſy. It may be here obſerved, that when once intemperance hath gained on a mortal, the fleſh is no longer ſubſervient to the will of the ſpirit; hence there is a degree of weakneſs, and of conſequence an eaſy prey is left for Lucifer; and where he can do the greateſt ills, there does he work with the greateſt vigilance; that is, amongſt heads of nations, and their intemperate flatterers. I repeat it again, that is, amongſt heads of nations, and their intemperate flatterers. And it appears his greateſt delight is in horrid ſcenes of war, and untimely deaths. Our ableſt expoſitors of the ancient great Prophets, who ſpoke by the mouth of God, and the revelations of St John the Divine, &c. make no doubt but that Rome is the great beaſt with ſeven heads and ten horns; they likewiſe make Rome to be the ſeat of the weſtern antichriſt, and Conſtantinople that of the eaſtern; and the ten horns with crowns on them ſo many idolatrous nations under the influence of the weſtern antichriſt; and what abominable uſes thoſe horns have been put to, is but too well known. Hath not the weſtern antichriſt been puſhing with them, and with diabolical fury goreing the beſt of Chriſtians in order to root out chriſtianity from off the face of the earth, and thereby introduce his wretched idolatry and wonderful methods of acquiring worldly wealth, ſuch as gold, ſilver, &c? What have they done with the ſecond commandment? Hath not Lucifer himſelf prompted them to conceal it from their deluded flock, a flock mocked by thoſe who pretend to be their paſtors? Do they not ſpeak to them in the church in an unknown tongue? What a high de-

gree of iniquity and folly is this? And was there ever known upon earth a more deteſtable and horrid device than making inquiſition for innocent blood, which they procure to ſtream forth? A volume would ſcarce be ſufficient to contain half the ſuperſticious and unparallelled abſurd idolatrous doctrines introduced into Chriſt's once glorious Church, by theſe notorious hypocrites, who have pretended to uſe their beſt endeavours to keep it in its greateſt purity. O intemperance how haſt thou debilitated man! thou, even thou haſt impowered Lucifer to transform thoſe who ſhould have been the beſt of men, into the moſt tyrannical monſters. Monſters, who have moſt wantonly violated the very laws of nature. The conſequence of which hath been perhaps no leſs than the diſcouraging and hindering the Jews, the Mahometans, and others, ſtill in darkneſs from embracing the glorious goſpel of Chriſt long ago, I ſay long ago; but how ſhould they, whilſt they have beheld with contempt the moſt glaring profanations of the great Creator's name, in the very act of worſhip? However we have it from undoubted authorities, that the Jews and alſo the Gentiles will, ſooner or later, embrace the goſpel of Chriſt; and, as no mortal hath been able to account for the time, who knows but it may be near at hand? See Iſaiah, chap. xi. and chap. lxv. Jeremiah, chap. xvi. from ver. 14, to the end; Jeremiah, chap. xxiii. ſee alſo the Revelations of St John the Divine; but there are many other parts of the Holy Scripture which might be referred to, and which fortel the converſion of the Jews and Gentile world. Sir Iſaac Newton tells us, "The "preſervation of the Jews through ſo many ages,

"and

" and the total deſtruction of their enemies are " wonderful events; and are made ſtill more won- " derful, by being ſignified before hand by the " ſpirit of prophecy. The preſervation of the " Jews is really one of the moſt ſignal acts of " divine providence; they are diſperſed among all " nations, and yet they are not confounded with " any, but diſtinct—nor is the providence of God " leſs remarkable in the deſtruction of their ene- " mies, and the oppreſſers of the jewiſh nation. " The Egyptians, the Syrians, the Babylonians, the " Syro Macedonians, eſpecially Antiochus, Epi- " phanes and the Romans, with ſeveral others." And where are now theſe great monarchies? Are they not vaniſhed as a dream, &c. &c. &c. The chriſtians and the jews would do well in ſeriouſly reflecting upon this. And well it would become the chriſtians to baniſh intemperance and idolatry from amongſt them; that they may no longer become a ſtumbling block to the jews and the reſt of the gentile world; but inſtead thereof, faithful and illuſtrious guides to lead them from darkneſs to light, and from the error of their ways into Chriſt's church. Would chriſtians only make trial of temperance for a while, they might with a good conſcience be able to pronounce it the real fountain of virtue; and of conſequence a thing more to be deſired than any other worldly good; as it would guide them into the true path which leads to eternal happineſs. Whoever is anxious after real pleaſure in this life, let him by all means obſerve a ſtrict temperance; which if he doth, he may acquire it, and with delight contemplate and meditate upon the many wonderful

and beautiful works of the great Creator. He may then with juſt exalted raptures obſerve the ſtupendous wiſdom and goodneſs of the great Jehovah, illuſtrated in every viſible part of the creation; and with heart-felt joy, extol and praiſe his gracious name: he would then, and not till then, have a juſt ſenſe of the egregious follies of the intemperate, and look down upon them with an eye of pity; would commiſerate their truly deplorable condition, and in compaſſion to them would, if he conceived there was a probability to reform them, uſe his utmoſt endeavour. We are told from holy ſcripture, that God doth not afflict willingly, nor grieve the children of men. To what then muſt we attribute the wretched conſequences of the late and preſent wars, and many other grievous evils, which a great majority of the people in Europe now labour under? To what elſe but intemperance, a moſt hateful ſpring, from whence iſſues a rapid and ſweeping torrent of black and deadly corruption, levelling in its courſe tens of thouſands of the ſons of Adam, even below the brutal creation. I have already obſerved that Lucifer works with the greateſt vigilance, where he can do the greateſt ills, which is amongſt heads of nations and their intemperate flatterers; and that it appears his greateſt delight is in horrid ſcenes of war and untimely deaths, &c And have not diſcerning men ſeen with remorſe, for above half a century paſt, that two or three intemperate and weak heads at a time, under the guidance of an evil ſpirit, have been able upon the feebleſt pretences to make Europe the bloody theatre of war, time after time? What a deep diſgrace hath intemperance

then

then brought upon religion? The Europeans ſtill profeſs deſtruction and inevitable ruin; inſtead of love, harmony, and union. Horrible war with her bloody banners is now making dreadful devaſtation and ravages in the Eaſt; and mighty preparations, for hoſtile blood have long been forming in the center, the ſouth, the weſt, and the north; ſuch as huge ſhips, with ſwarms of men, many of which are too often compelled by force to abandon their helpleſs families, or aged and indigent parents; theſe ſhips too are ſufficiently provided with ugly and unweildy inſtruments of death, ſuch as heavy tubes of iron, ſolid and hollow globes of the ſame metal, to be put in furious motion, by a ſtinking compoſition, (ſaid to be the invention of a prieſt) in order to daſh in pieces, blow up, burn, ſink, or otherwiſe deſtroy the nobleſt work of the beautiful creation; and the greater the deſtruction, whether by ſea or land, the more pleaſing toLucifer, there being the more plunder for him; alſo the more pleaſing to theſe moſt wretched and chief tools of his, (I mean the ſecret promoters of theſe unhumane and barbarous wars) provided the greateſt havock be made on the ſide they have procured to be their enemies. O what horrid monſters are produced from the deadly ſpring of intemperance? To what purpoſe are theſe bloody wars? It ſeems the Omnipotent Being is moſt juſtly offended at the numberleſs and grievous ſins, which now flow from intemperance, and therefore doth not at preſent reſtrain the power of Lucifer; but then if men would become temperate, they would ſee clearly into their paſt follies, be greatly aſhamed, and become alſo truly penitent, ſhewing forth, with-

out diſſimulation, a moſt ſerious repentance. A great change, therefore from intemperance to temperance is become highly neceſſary, it being the only poſſible means now left us, whereby we can expect to intercede with the Father of Mercies, to reſtrain and bind Satan. I repeat it, it being the only poſſible means now left us, whereby we can expect to intercede with the Father of Mercies to reſtrain and bind Satan. See what St John ſaith in the 20th chapter of his divine Revelations, verſes the 1ſt, 2d, and 3d; "And I ſaw an Angel come down from Heaven, "having the keys of the bottomleſs pit, and a "great chain in his hand; and he laid hold on "the dragon, that old ſerpent which is the Devil "and Satan, and bound him a thouſand years, "and caſt him into the bottomleſs pit, and ſhut "him up and ſet a ſeal upon him, that he ſhould "deceive the nations no more till the thouſand "years ſhould be fulfilled and after that he muſt "be looſed a little ſeaſon." Hence it is very plain from this paſſage of St John, that the Devil is now actually deceiving the nations. It appears alſo very plain from many other parts of the holy Scripture; but alas! how few are there, that lay theſe things ſeriouſly to heart; I ſay how few in compariſon of the multitudes now wallowing and groveling in the very depths of intemperance, and committing, with a ſeeming pleaſure, almoſt every ſort of crimes which Lucifer can poſſibly ſet them about, mean time they exhibit a moſt ſtriking view of their ingratitude to God their maker; and are heaping upon their own heads a heavy weight of his moſt juſt indignation, and in vain may they hope to have it lightened whilſt they continue intemperate,

temperate, it being contrary to the wiſe order of things: For God is truth and cannot falſify himſelf. Europe was once accounted the enlightened quarter of the world, but now dark, diabolical and diſmal clouds of hateful tyranny have eclipſed it. We are told from Holy Scripture, as I have before obſerved, that God doth not afflict willingly, nor grieve the children of men. And if woe hath been denounced on the drunkards of Ephraim, what will be the portion of leading tyrants, or even the loweſt claſs of them? Tyranny, as I have before obſerved, is now in faſhion; and we have tyrants interſperſed throughout Europe, of ſeveral denominations, from high to low degrees, even down to the ſteward of a man of middle eſtate. Tyrants and oppreſſors, of whatever denomination, are moſt juſtly looked upon by all reaſonable men as animals, above all other tribes, the moſt hateful to God; and how much better think ye are thoſe deſpicable ſouls, who follow and flatter them, and by ſo doing encourage them to perſiſt in their iniquity, and even grow and increaſe in it? Is it not a moſt prepoſterous and woeful ſcene for reaſonable men to behold one ſort of people perverted in judgment through intemperance, and now in the leading-ſtrings of Lucifer, oppreſſing without regret their fellow creatures, and thoſe too, who are their real ſupport? For what is ſix or ſeven ſhillings per week for ſix or ſeven ſouls in a family to ſubſiſt on, as the times now go; and I may ſay have gone for ſeveral years paſt? It appears ſelf-evident, from the natural propenſity men are endowed with, to beget their own ſpecies; that it hath been the will of the divine Creator, that this earth ſhould be well ſtocked with people;

but

but the tools of Lucifer countermine his gracious will, and keep out of the reach of multitudes the real neceſſaries of life; I mean the fruits of the earth, which the beneficent Creator hath made to grow plentifully for the uſe of man (and think nothing but that he who formed all things, is able, and will increaſe the fruits of the earth as he ſees men multiply and increaſe in virtue). Hence the labourers, &c. are deterred from entering on the marriage ſtate, and procreation is greatly hindered; mean time great multitudes of uſeleſs horſes and dogs, &c. are liberally fed with the precious fruits of the earth, which is abomination to the full extent.

What are riches when acquired by oppreſſion? They are no leſs than a real curſe to the ſuppoſed owner; for, ſpeaking in a religious ſenſe, we can call no riches our own that we do not make a right uſe of. How much leſs thoſe which are procured from others by oppreſſion. See what St Paul ſaith of thoſe who are eager in the purſuit of riches in his firſt epiſtle to Timothy. Ch. vi. verſes 9, 10. "But they that will be rich fall "into temptation and a ſnare, and into many "fooliſh and hurtful luſts, which drown men in "deſtruction and perdition. For the love of money "is the root of all evil, which while ſome coveted "after they have erred from the faith and pierced "themſelves through with many ſorrows." Bias, quitting a city about to be beſieged, took no care to carry any of his treaſures with him, as did the reſt; and being aſked the reaſon of that negligence; I bear with me, replied he, all that I eſteem worthy the name of riches, my honeſty and learning. Socrates being ſent for by King Archelaus, and being promiſed great riches if he

would

would reſide at his court, made this reply, that a meaſure of corn coſt but a farthing at Athens, and that water was to be had for nothing. Socrates and Bias, being temperate, were enabled to become proficients in philoſophy; which, according to a modern author, is the deſire of wiſdom, the ſtudy and exerciſe of ſcience, or rather it is the ſcience of all things, and particularly teaches to know God and ourſelves. Philoſophy, ſaid Xenocrates, roots out all pride, ambition, anger, avarice and injuſtice from the ſoul, and raiſes humanity almoſt to divinity. Temperance is the main ſpring of philoſophy; for, where it ſubſiſts, noble and ſublime ideas are kindled in the vigorous ſoul, which gives it wings to ſoar aloft, and there, with ſteady eye and pleaſing tranſports of delight, behold the aſtoniſhing greatneſs and wonderful goodneſs of the all powerful Creator, in every viſible part of his ſtupendous work; and the more he meditates upon the Almighty's juſt laws and excellent works, the more he becomes in love with them. Hence virtue becomes his only guide; and thus pride, ambition, anger, avarice and injuſtice, are rooted out of the ſoul. The way then to combat and conquer evil habits, and diſappoint Lucifer is, as I have before obſerved, to ſubſtitute without delay temperance, inſtead of intemperance, which is the wretched mother of vice, ſin, ſorrow, miſery and eternal death.

I imagine that there are ſeveral paragraphs in this little book which will at firſt ſight be highly offenſive to ſome kinds of people; I mean thoſe who through intemperance are ſunk in vice, and under the influence of Lucifer; however let them take heed what they do, and by no means endea-

vour

vour to hinder the good effects it may have in any country, leſt they bring down a heavy judgment upon their own heads; for God is moſt aſſuredly above the Devil; and, as I have before obſerved once and again, God doth not afflict willingly, nor grieve the children of men; but his gracious and divine will is, that all may come to the knowledge of the truth, and be ſaved, through the mediation of his beloved ſon Jeſus Chriſt, who, through his own voluntary death, became a propitiation for the ſins of all mankind. Yet notwithſtanding there is ſtill a ſmall taſk enjoined us by the divine goodneſs, in order to compleat our own eternal ſalvation, and fit us for the never-fading crown of glory, viz. We muſt perpetually have a living faith in God's mercy through Chriſt, with a thankful remembrance of his death, (which was no leſs than ſaving us from eternal miſery) and be in charity with all men; muſt uſe the two holy ſacraments, ordained by Chriſt himſelf with all due reverence, that is baptiſm and the celebration of the Lord's ſupper, they being accounted generally neceſſary to ſalvation. And altho' temperance will greatly aſſiſt in ſubduing the fleſh to the will of the ſpirit, and prevent many follies and grievous ſins; yet it may be expected, that frail human nature will ſtill be liable to make ſome wrong ſteps; therefore, when we find that we have committed evil either by thought, word or deed, we muſt pray with a contrite heart to God the father of mercies, for pardon, and then for grace to ſtrengthen us againſt the temptations of the Devil, the world, and the fleſh; for he is a gracious God, and will abundantly pardon and aſſiſt a penitent ſinner. It is likewiſe our duty to

pray

pray fervently to him for every want which is neceſſary to guide us in the right way, which leads to eternal felicity.

Our ſolemn thanks and praiſe, are alſo juſtly due to God the father, for all his manifold mercies, and ineſtimable benefits vouchſafed to us poor mortals, which we ought to render forth with a becoming flow of the warmeſt gratitude and filial love. I have mentioned a little before, that we are to be in charity with all men: This one word charity comprehends a great deal, no leſs than our duty to our fellow creatures, as enjoined us by the beneficent creator of us all. Charity is a moſt lovely thing, and is therefore what ſound reaſon dictates to men ſhould be uſed univerſally; the needy themſelves being capable of putting in practice ſome uſeful and goodly branches of it; but that moſt humane part of charity, which comprehends giving and diſtributing to the bodily neceſſities of others, ought in ſome meaſure to be done proportionably, as we have it in our power; I ſay, as we have it in our power, for ſometimes a man which is not very rich may be able, by the help of his voice alone, to give much more aſſiſtance to the diſtreſſed, than another who hath ten times more wealth. And ſuch are they who are choſen by the people of any country, to take a ſhare of the government of ſuch country upon themſelves. And there is nothing upon earth that can ſo well enable a man to put in practice acts of real charity as a ſtrict temperance. Whoever enjoy this great bleſſing are the men, above all others, much the ableſt to ſave themſelves, and ſhew forth good and illuſtrious examples to others. There is neither chriſtian nor jew, nor yet gentile

tile, who hath a right uſe of his mental faculties, but finds that he hath a natural and ſtrong inclination ingrafted in his ſoul, which leads him to practice real acts of charity to his fellow creatures. I might have ſummed up in a much leſs compaſs, the ſmall taſk enjoined us by the divine goodneſs, in order to compleat our eternal ſalvation; for if, after the words gratitude and filial love, I had ſaid our duty to our fellow creatures, conſiſted in doing to them as we would they ſhould do to us, it would in a great meaſure have compleated the whole little taſk; for little it might be accounted were men to live temperately, and only as the law of nature teaches them. But alas! to the intemperate, who are deluded and bewildered, the taſk appears highly difficult.

Having a zealous deſire to ſee my fellow creatures enjoy peace and tranquility in this life, to the end they may attain felicity in the next; let me remind them what St Paul ſaith of charity in the 13th chap. of his epiſtle to the Corinthians, from ver. 1ſt to ver. 9th, and ver. the 13th. "Though (ſays he) I ſpeak with the tongue of "men, and of angels, and have not charity, I be-"come as ſounding braſs, or a tinkling cymbal: And "though I have the gift of prophecy, and under-"ſtand all myſteries, and all knowledge; and "though I have all faith, ſo that I could remove "mountains, and have not charity, I am nothing. "And though I beſtow all my goods to feed the "poor, and though I give my body to be burned, "and have not charity, it profiteth me nothing. "Charity ſuffereth long and is kind, charity "envieth not, charity vaunteth not itſelf, is not "puffed up; doth not behave itſelf unſeemly,

"ſeeketh

" ſeeketh not her own, is not eaſily provoked, think-
" eth no evil. Rejoiceth not in iniquity, but re-
" joiceth in the truth. Beareth all things, be-
" lieveth all things, hopeth all things, endureth
" all things. Charity never faileth, but whether
" there be prophecies they ſhall fail, whether
" there be tongues they ſhall ceaſe, whether there
" be knowledge it ſhall vaniſh away." And in the 13th verſe of this chapter St Paul calls charity greater than faith. Let us ſuppoſe two men equal in circumſtances, but each of them low in the world, and at times have real need of each others aſſiſtance, one wants and aſks aſſiſtance, which is lent him by the other with pleaſure; but in turn he becomes neceſſitated for ſomething which he knows the borrower can ſpare, aſks it for a time but is denied; now he who denies is guilty of the heinous ſin of ingratitude, and commits an offence againſt his maker; but intemperance hath ſo blinded the generality of mankind in this miſerable age, that ſuch an action is ſcarce deemed ſo much as a trivial fault, not even among thoſe who pretend to be the beſt chriſtians. But if the above ingratitude be a heinous ſin, as moſt certainly it is, for the very law of nature poſitively declares it to be ſuch, what a monſter of ingratitude muſt he be, and how dreadful in futurity muſt be his reward, who gives his voice in a ſenate with a direct tendency to diſtreſs thouſands of his fellow creatures who are his ſupporters? I need not here ſpeak of his ingratitude to God, it being too notorious, and if poſſible too affecting even to the preſent generation; if ſuch a one perſiſt in his miſerable iniquities, he will at the laſt ſtand trembling and ſelf condemned. Let us ſuppoſe ſuch a one at the very point of death, with-

out any the leaſt hopes of time on hand for repentance, and with a ſtrong and more lively ſenſe than uſual of his guilt; behold the wicked actions of his miſ ſpent life, and particularly thoſe which contributed to the diſtreſs of thouſands, if he hath the power of utterance left, will he keep ſilent at his dreadful period? it is Lucifer's intereſt that he ſhould, and not alarm the by ſtanders at ſuch an aweful time; and we find that the moſt abandoned to virtue often finiſh the laſt of their life in the manner they have lived, that is they are too little ſenſible of their own wretched condition: but I have repreſented the before-named criminal as having acquired a more lively ſenſe than uſual of his own guilt, and ſuppoſing him able to ſpeak, will he not with the diſmal aſpect of deſpair break forth a flattering voice and ſay.

Oh, that I had never been born! Oh, that I had never ſeen the light! &c. or may he not ſay he has ten ten thouſand times more reaſon to curſe the day of his birth than righteous Job had, and cry out Oh, intemperance! intemperance! Oh, wretched flatters and followers! Oh, abominable faſhions and cuſtoms! Oh, pride! Oh, ambition! Oh, avarice! and Oh, that I had never aſpired after riches nor falſe honuors nor worldly grandeur! for theſe evils, alas! have to all eternity undone me. Oh, the bitterneſs of eternal death! my ſtrength is gone, my glaſs is juſt finiſhed, and I have no hope. Let us for a while take the above deluded wretch in another view, and ſuppoſe that, by a decay of his conſtitution or other cauſe, he hath left off to be intemperate, and is become in love with its oppoſite, viz. temperance, and thereby hath eſtabliſhed his health, and hath acquired freſh

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vigour both of body and mind, inſomuch that now his fleſh is, in a great meaſure, ſubſervient to the will of his ſoul, and they ſtrongly inclined to work together for good, what will be his firſt ſtep towards a reformation?

No doubt but an humble and willing confeſſion of his crimes to his maker will be his firſt object; and the next an unfeigned and ſincere repentance for what is paſt. Let us now imagine that his ſincere confeſſion and diſpoſition will be as follows. To the Lord our God belong mercies and forgiveneſs; therefore will I, in good earneſt, acknowledge my tranſgreſſions; for my manifold ſins do now appear exceeding great and terrible before me. Oh, that I had never been led into the dark and diabolical path of intemperance; for then might I have retained ſight and ſtrength and power, which through the grace of God would have enabled me to triumph againſt the temptations of the devil, and all the vices which intemperance hath now plunged me into; but alas! I have in general done the things which I ought not to have done, and left undone thoſe very things which, in juſt gratitude to God and my fellow creatures, I ought moſt ſolemnly to have done. Now mine eyes are opened, now do I behold with horror the darkſome paths wherein I have ſtumbled and fallen, and do moſt ardently beſeech thee, O Lord God moſt holy, O holy and moſt merciful ſaviour not to deliver me into the bitter pains of eternal death; but ſpare me a little that I may become a moſt ſincere penitent in very deed. I have trampled upon thy moſt ſacred and juſt laws, even thoſe which thou hadſt with a fatherly kindneſs implanted in my heart; neither have I had pity upon my

diſtreſſed fellow creatures, when their real neceſſities demanded it. Oh, the wretched ſin of ingratitude! how juſtly do I feel this tumultuous conflict within my breaſt?

It is I, who, through my learning and elevated ſtation in life, ought to have been an exemplary patron of good works; for the new acquired ſtrength of my reaſon and the divine ſcriptures, which I have at laſt begun to look into, declare ſolemnly that unto whomſoever much is given, much ſhall be required. But alas! the examples of my wretched life have been juſt the reverſe, Oh, had but I and my equals walked in the comfortable paths of virtue, we ſhould have been followed by multitudes, who are now murmuring and groveling in the deſtructive paths of ignominious vice. Oh, how grievous is this reflection to me? how doth it oppreſs my ſoul? how are my very bowels pained within me? yet nevertheleſs I confeſs to thee moſt merciful father, that my preſent ſufferings bear but little proportion to the dreadful puniſhments which I have moſt juſtly merited at thy hands.

What a depth of iniquity and ſtupid folly was I ſunk into, when, without heſitation, I gave my voice with a direct tendency to diſtreſs thouſands of my fellow creatures, each of whom had as juſt a right to enjoy in moderation the real neceſſaries of life as myſelf? Oh, wretched man that I am, ſurely I had then been under the influence of an evil ſpirit; but being then weak and confuſed I did not perceive it; my mental faculties having decayed, imperceptibly to me, as that deteſtable evil, intemperance, gained ground; and I muſt confeſs, that as ſoon as I am become weak, it was the

firſt work of ſatan to inſtill pride and ambition into me, to ſupport which I became covetous and oppreſſive, in order that I might be able to vie in grandeur with ſuch as I thought, in other re-reſpects, were only my equals. Wretched and prepoſterous faſhions and cuſtoms I alſo followed; and my hateful pride and ambition led me into ſuch a baſe degree of wickedneſs, folly and ignorance, that I thought my ſituation would appear the more honourable and lofty, the lower I could reduce the induſtrious tribes of men, when neceſſity cauſed them to complain; I looked on their complaints as groundleſs, and attributed their noiſe to their ignorance and impudence; for alas! I had then forgot what it was to be hungry, and was become relentleſs, even when I heard the miſerable cries of my half ſtarved fellow creatures: but I have for a while been making juſt reflections and obſervations, reſpecting the induſtrious poor; and the more I reflect, ſo much the more have I been ſhocked and grieved to the very ſoul, to think that I ſhould have been ſuch a heavy ſcourge to them. Well might they and ſuch hearts as could feel for them make ſtrong cries for relief; their neceſſitous wants being truly deſerving the greateſt commiſeration of every reaſonable man. I confeſs I took the moſt ſhameful means to gain what I then fooliſhly imagined to be an elevated and honourable ſtation and was ſo deſpicably mean, as premeditately to induce my rivals in folly and weakneſs to break through the laws of their country; but here I did not ſtop, for, in order to raiſe myſelf, the abominable crime of perjury was committed; and I had the audacity to ſhew myſelf publicly to be an infamous and downright

hypocrite, promiſing many things of great conſequence, to many, which I myſelf and ſeveral of my flatterers well knew, could never be performed. Thus did I publicly act, and, by ſhewing forth unmanly, brutiſh and wicked examples to multitudes, I contributed not a little to ſpread vice and immorality over the land. Oh, that I had been a ſhepherd, or a day labourer, rather than have been loſt in the black gulf of intemperance for ſuch a length of time! Oh, that crying ſin of ingratitude! how doth it afflict, perplex, and torment my ſoul? that is the black crime which, above all others committed in the courſe of my wickedneſs, loads me with the heavieſt grief. Surely intemperance had turned the natural love and affection, which was at firſt implanted in my heart, into luſt and cruelty; and I confeſs I knew little of what real charity meant; I was a ſtranger to real acts of charity, altho' I ſometimes gave a little money, &c. about me near home; but then for ſuch giving I expected praiſe, and received it in return! I did not then reflect that real charity was the very bond of peace and of all goodneſs; but moſt certainly it is, and the very nobleſt and greateſt of all virtues; and how eaſy is it to remember to do by others as we would have others do by us? Oh, that I had been virtuous when I was at the fountain head; then ſhould I have acted the part of an honeſt and upright man, and contributed, to the utmoſt of my power, to extend peace, proſperity, and comfort to all ranks of men! my firſt and chiefeſt object would then have been to alleviate as ſoon as poſſible, the diſtreſſes of my miſerable fellow creatures; for ſure nothing on earth can give a virtuous man more real and

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laſting pleaſure, than to have it largely in his power to exerciſe that nobleſt of all virtues charity. I confeſs that this happy change from intemperance to temperance hath made an aſtoniſhing difference in my mental faculties for the better; therefore my moſt hearty thanks are juſtly due to the divine giver of all good things, becauſe he did not cut me off, as was my deſert, in the midſt of my abominable iniquities. What return then ſhall I make unto the Lord of all, as a ſufficient recompence for the wretched ſin of ingratitude committed againſt him, and alſo againſt thouſands of my fellow creatures? alas! for ſuch a recompenſe ſeems to be highly difficult; but the holy ſcriptures afford me great conſolation, teſtifying that through a lively and ſtedfaſt faith in Chriſt, and an unfeigned and hearty repentance, I ſhall be ſaved. Sincere repentance then, without delay, is the momentous work I will moſt ſolemnly purſue, and with the aſſiſtance of divine grace become a humble convert, and virtuous chriſtian; after which, if I have precious time on hands, I will ſpare no pains nor endeavours to aſſiſt, with my utmoſt vigour, in fiſhing and drawing men out of the unnatural and deſtroying gulf of intemperance; and bleſſed be the time that its foaming billows and hideous ſurges rolled and daſhed me againſt the tempeſtuous ſhore; for, although I was wounded, bruiſed, and benumbed, I have eſcaped with life, as a bird out of the ſnare; and am now under the ſpecial care of the great phyſician of ſouls, who brought healing in his wings, I will hear no more flatterers, for their deceitful words ever greatly increaſed my follies: They much reſemble ravens, who ſeldom

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fly but where there is ſomething to be got; and, as the wolf has ſome reſemblance of the dog, ſo has the flatterer of the friend. Thus much I can now diſcern; but, in the midſt of my intemperance, I was very incapable of judging who were my real friends, and who were deſpicable flatterers; and I will ſay unto them who have been my companions in committing the ſin of ingratitude, &c. turn ye, turn ye, for why will ye die in your iniquities; leave off intemperance, that ye oppreſs no more; ceaſe to do evil, learn to do well; keep in perpetual rememberance that it is required of us by the great creator, to do by others as we would they ſhould do by us; and know aſſuredly, that unto whomſoever much is given, much ſhall be required; know alſo, that a large ſtock of worldly wealth or worldly power can only be of ſervice to the man who is virtuous; for no other will make a right uſe of them. I now remember the words of our bleſſed ſaviour, viz. how hardly ſhall they that have riches enter into the kingdom of heaven? hence, to ſuch as are without virtue, they will tend greatly to promote their eternal miſery. Know likewiſe, that worldly honours and worldly grandeur, are but mere empty ſhews and ſhadows, when compared with ſolid virtue; and that, in order to become truely virtuous, intemperance muſt be abſolutely baniſhed; then the moſt difficult part of the taſk is finiſhed. Let me, who am juſt eſcaped out of the mire, ſeriouſly conjure you to follow and be waſhed from your filth; for what will it profit a man if he ſhould gain the whole world, and loſe his own ſoul? our time is very uncertain, a day or even the next quarter of an hour may be our

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laſt; I ſay our laſt; and where the tree falls there it muſt lie, for there is no repentance in the grave; nor can it be made in the life, which is bemired in intemperance. Put away therefore ſuch a dreadful and deadly enemy from your preſence for ever, that you may be able to look back. and have a clear view of your wretched ingratitude and miſerable iniquities, to the end that you may give yourſelves up to a moſt ſincere repentance, and be ſaved at the laſt; and may be able, in your laſt hours, to ſay with the late truly great and virtuous man Lord Littleton, viz. "I would "not change the pleaſing conſolation of a good "conſcience for the poſſeſſion of the univerſe." Mean time I muſt withdraw for a while, having not as yet compleated my own repentance, but am ſo far advanced that it is now no longer a taſk but a comfortable duty, ſince the enemies which have warred againſt my ſoul are conquered. Before I leave you, I leave with you a few comfortable words our Saviour Chriſt himſelf hath ſpoke. "Come unto me all ye that labour and "are heavy laden, and I will give you reſt. "Take my yoke upon you and learn of me, for "I am meek and lowly in heart, and ye ſhall find "reſt unto your ſouls, for my yoke is eaſy and my "burthen is light." I might here have repreſented a variety of other claſſes of men groveling in intemperance and laden with iniquities; but as none of the lower claſſes in Europe, are ſo capable of checking vice and immorality, by good examples, or on the contrary by ill examples, &c. and drawing multitudes into diſtreſs, wickedneſs, and miſery as the leading men, I have written in the manner I conceived would

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be beſt for the preſent, and eternal good of mankind in general; and I hope that the ſurprizing increaſe of wickedneſs and wretchedneſs, will be a ſufficient apology for my having written in the manner I have done. I have not the leaſt deſign of ſtirring up any one kind or rank of people, againſt any other kind or rank of people, upon any one part of the earth; and hope my work when taken together will be looked upon by all who ſee it, as having the direct oppoſite and contrary tendency, viz. to encourage temperance and virtue, and to diſcourage intemperance and vice. However it is ſtill doubtful, but that ſuch as are the deepeſt ſunk in vices produced from intemperance, will at the inſtigation of Lucifer, &c. deride and make a ſcoff at any one who ſo much as dares attempt to expoſe their blind and miſerable follies, or endeavours to procure an increaſe of virtue. But as virtue is the fountain of everlaſting happineſs, and vice the fountain of eternal miſery; and as I (as well as all other men) am moſt aſſuredly in duty bound to aſſiſt my fellow creatures according to my abilities, I muſt neceſſarily bid defiance to any tool or tools of Lucifer, who may be diſpoſed to obſtruct my endeavours in promoting virtue or moral goodneſs. And as I have before repeatedly obſerved, that God doth not afflict willingly, nor grieve the children of men; but on the contrary is very merciful, and deſires that all may come to the knowledge of the truth and be ſaved. Therefore let me again ſeriouſly caution obſtinate and bigotted ſinners, and ſelf-intereſted men to take heed what they do, and by no means endeavour to hinder the good

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effect this little book may have in any country, leſt they bring down a heavy judgment upon their own heads.

Thus far have I proceeded in order to ſhew the preſent generation of men, how much intemperance hath contributed to let in the power of that wily ſerpent the Devil among them, &c. For, as I have before obſerved, that when once intemperance hath gained the aſcendant, the fleſh is no longer ſubſervient to the will of the ſpirit; hence there is a degree of weakneſs, and of conſequence an eaſy prey is left for Lucifer, and where he can do the greateſt ills, there does he work with the greateſt vigilance, that is amongſt heads of nations, and their intemperate flatterers. And if there be any that cannot reliſh this diſcourſe, let them ſuſpend their judgment, forbear their ſcoffing at it, and try for a while the experiment of my medicine, which is deſigned for the noble purpoſe of invigorating and ſtrengthening both body and ſoul, in ſuch a manner that the fleſh will in a great meaſure become ſubſervient to the will of the ſoul, and no longer obſtruct nor obſcure its godly purpoſes and ſhining virtues; conſequently thoſe who uſe the medicine with diſcretion, will be enabled to vanquiſh that monſter intemperance, and triumph over the power of Lucifer, with the aſſiſtance of God's grace, which is not withheld from the humble, who make a ſuitable application for it. And they who uſe this medicine will, I preſume, be humble (although their true courage and bodily ſtrength be increaſed) for when the fleſh becomes ſubſervient to the will of the ſoul of any man; Lucifer's magnifying glaſs muſt vaniſh, and then will that man (let his ſtation in life be

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ever ſo high) behold himſelf to be in reality a very little thing indeed, eſpecially if he begins ſeriouſly to contemplate on the mighty works of the great Creator, which he will then (and not till then) be enabled to do with a high degree of delight.

I come now to ſhew what this medicine is, how and in what manner it is to be applied, and give reaſons, and arguments, &c. deduced from repeated experiments, numerous obſervations, and from ſeveral eminent authors, to ſhew why this medicine, above all others, is capable of performing ſuch a wonderful change in the human ſtructure for the better.

The name of this medicine which I am about to recommend to the world, is WATER, and the purer it is the better. It is to be applied externally and internally to the body. The external application is by waſhing every part of the ſurface of the body with it, from the crown of the head, to the ſoles of the feet, in its natural ſtate, in the warmth of ſummer; but in high latitudes in autumn, winter and the ſpring its cold may be ſo far removed by the help of fire, as not to make it too diſſagreeable when it comes in contact with the ſkin. And this ſalubrious method of waſhing, I would recommend to all ranks of people, from an infant to the exit of the gray headed, making allowance only for the few infirmities which cold bathing is againſt, in the greateſt heats of ſummer. I would likewiſe recommend this ſaid method of waſhing to be uſed through all the ſeaſons of the year; but in high latitudes where there are pinching froſts, it is the leaſt needful in the winter quarter, and eſpecially in the time of froſt. I

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would alſo recommend it to the peoplein general, to waſh every ſecond or third day, at leaſt for the firſt year, that they may be ſenſible of the comfortable benefits ariſing therefrom; after which it is to be hoped, that the method of waſhing will become a general and an eſtabliſhed cuſtom. As to the internal application of proper water, I ſhall ſpeak of it hereafter; and likewiſe in another place, be very particular in explaining the method I think moſt eligible to tender people, in applying the water, &c. in the act of waſhing the body. But my preſent purpoſe is to convince mankind, that the greateſt utility to both their bodies and ſouls, may be derived from the ſimple method of waſhing the body, and making a prudent uſe of proper water internally. But firſt, I ſhall treat of outward waſhing; which, by my own experience, and a great variety of obſervations. I find to be highly preferable to cold bathing, in either ſalt or freſh water; altho' ſuch bathing hath been of great ſervice to numbers, and performed many extraordinary cures; and, to make compariſons betwixt waſhing and cold bathing, I ſhall here quote ſome eminent men reſpecting the utility of cold bathing. Dr Williams ſays, "Cold baths were "held by the ancients in the greateſt eſteem, and "the preſent age can boaſt of abundance of noble "cures performed by them, and ſuch as were "long attempted in vain by the moſt powerful "medicines. Bathing," Says he, "Will always act "the part of a diuretic, and plunging over head "in cold water, eſpecially in that of the ſea, "will do more in the cure of melancholy, madneſs, and particularly that occaſioned by the "bite of a mad dog, than any other medicine

" There is nothing better adapted to the cure of " frigidity, when owing to a former exceſs of ve- " nery, than the cold bath. It will alſo contri- " bute its ſhare, to the cure of a ſimple gonorr- " hoea and fluor albus. It is often ſucceſsful in a " palſy; and thoſe who uſe it frequently are little " affected with the changes of the weather." Dr Wintringham recommends cold bathing, as one means to aſſiſt in the cure of the gout.

Dr Buchan recommends ſtrongly the cold bath, in the place where he treats of the cure of nervous, hyſteric, and hypochondriac diſeaſes, and ſays, " Nothing tends more to ſtrengthen the nervous " ſyſtem than cold bathing: This practice if duly " perſiſted in," he ſays, " will produce very ex- " traordinary effects; but that when the liver " or other viſcera are obſtructed, or otherwiſe un- " ſound, the cold bath is improper; or if the " patient be weakened by it, or feels chilly a long " time after coming out, it is improper." He recommends cold bathing likewiſe againſt the king's evil and rickets in children; for the cure of the rheumatiſm, barrenneſs, &c. Many other able authors on phyſic, might be here quoted, to ſhew the great benefits which might be derived from the prudent uſe of a cold bath; but Dr Buchan informs us, that ſo far as he has been able to obſerve, the cold bath does as much miſchief as good; but that is owing to the want of due care in uſing it. Phyſicians tell us, cold bathing may be conſidered as an aid to excerciſe: by it the body is braced and ſtrengthened, the circulation and ſecretions promoted, &c. I have lived ſeveral years upon the ſea coaſt, and at a place where people from the interior parts of the country have

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come to bathe; their ſtay was generally ſhort, and that together with other miſmanagements, and their being at times hindered by the inclemency of the weather, &c. I believe upon an average that little benefit was gained, as ſeveral have been hurt by it. Beſides it is only the warmeſt ſeaſon of the year in which bathing is practiſed, by reaſon of the coldneſs of the water; and therefore the effect, in many caſes, is taken off betwixt each time of bathing, through the warmth of the weather at ſuch ſeaſons. Moreover tender mothers, timorous and low-ſpirited patients, with the inconveniences which attend many other patients, in getting to proper places of either ſalt or freſh water; I ſay theſe three things put together hinder great numbers of patients from making a trial of the cold bath: on the contrary there is nothing which needs hinder the body from being waſhed, at any ſeaſon of the year, except a very few infirmities, which cold bathing is more againſt, altho' it be uſed with the greateſt diſcretion. And the greateſt benefit may be received from waſhing, when the ſeaſon for cold bathing is improper, that is in the ſpring and at the approach of winter; for then the heats will not counteract the bracing and ſtrengthening property of waſhing. Cold bathing too would have the beſt and moſt durable effects at theſe times of the year, were it not for the exceſſive coldneſs of the water, which prevents even the few who might not be hurt by it, from putting it in practice. The moiſt, damp, ſoggy, and rainy weather, ſo common in the ſpring and autumn, contribute greatly to relax and weaken the tubes and fibres of the human body (which prediſpoſes it to

be ſubject to many fatal diſeaſes) eſpecially in the autumn, at which time the atmoſphere is generally lighteſt; which, in combination with the moiſt cauſes of relaxation, produces a ſlow and lanquid circulation of the blood, a diminution of the ſecretions, and an obſtructed perſpiration; which defects occaſion internal obſtructions, a morbid ſtate of the humours, and many very pitiable diſeaſes; which might in general be prevented by the prudent uſe of waſhing the body, at ſuch times as it would effectually ſupply the place of the cold bath. And phyſicians tell us, as I have before obſerved, that the cold bath may be conſidered as an aid to exerciſe, that by it the body is braced and ſtrengthened, the circulations and ſecretions promoted. And theſe moſt ſalutary benefits, I have found by my own experience, may be effectually obtained by the delightful method of waſhing with pure water only, which never need be uſed ſo cold as to make the operation diſagreeable. Having in the early period of my life been plentifully exerciſed in the open air by labour, play, &c. I was exceeding healthy and vigorous, but turning to a direct oppoſite employ, in a confined air, the great and ſudden change effected an indiſpoſition in my nervous ſyſtem, which induced me to apply for relief; cold bathing was recommended: I uſed it in both ſalt water and freſh, according to the beſt advice. When the water was warmeſt, I found a temporary relief from it; but at ſuch times the warmth of the weather, betwixt the times of bathing, apparently prevented my receiving any laſting benefit from it. And when the water was a little colder, going into it proved highly injurious to my conſtitution. I tried ſeveral

ral other medicines, all famed for curing nervous diſeaſes; ſome proved hurtful, others ſomewhat beneficial, but I could not obtain a cure.

Long ſea voyages were recommended; which was one inducement to my engaging in a ſea-faring life; and which I purſued for ſome years upon the coaſt of India. I found no benefit in the fore part of my voyage to India, it being, in general, extraordinary warm weather, until we arrived near the latitude of the Cape of Good Hope: being in the month of September, the heat decreaſed, and the cold increaſed to the degree which produces hailſtones; and then the increaſed weight of the atmoſphere, together with a perpetual and accelerated motion (for there we had tempeſtuous weather and high ſeas) contributed greatly to my relief: and, before we had ſtretched twenty degrees to the eaſtward of the Cape, I thought the diſeaſe almoſt eradicated. However ſome years afterwards meeting with adverſe fortune in India, occaſioned by the tyrannical proceedings of certain Europeans there, I was deſirous of returning home; but, as it was not the cuſtom to let any return who had juſt cauſe of complaint, I was there detained upwards of two years, and about two thirds of the time at my own expences; and being the greateſt part of that time under the diſpleaſure of a powerful enemy, they who had been my beſt friends durſt no longer be ſeen to take my part, but became as ſtrangers: mean time I was expoſed to the brutal inſults of wretched European flatterers, who were full of deceit and iniquity; and who, from their former precedents had made me conſcious that they were capable of the blackeſt deeds: ſeveral judicious

men, who have been informed of the many aggravating circumſtances which attended me during the two laſt years in India, have adjudged that my ſufferings would have been inſupportable to moſt people; but, by the aſſiſtance of providence, I ſurmounted them: However, during the long and tedious conflict, my nerves received a ſecond ſhock, and yet the ſecond proved more ſlight and of ſhorter duration than the firſt.

Having been favoured, in a great part of the run betwixt India and the iſland of St Helena in our homeward bound paſſage, with pretty cold weather, a heavy atmoſphere, and the perpetual motion or conſtant exerciſe without fatigue, I was again ſet right; altho' proviſions which had been long ſalted were the greateſt part of my food: thus far have I ſteered out of my direct courſe, in order to repreſent the great benefits which may be derived from long ſea voyages, when the body is in a languid ſtate; and how indiſpenſibly neceſſary exerciſe is to the whole race of human beings in order to prevent a languid circulation, and morbid ſtate of the humours, and the deſtructive diſeaſes, and other calamitous evils proceeding therefrom. However, I have before obſerved, that waſhing will be an aid to exerciſe, and am conſcious that, when it is tried, it will be ſo found two different ways, viz. in the firſt place, it will brace and ſtrengthen the body, promote the circulation, and the different ſecretions; and all this without overheating the body, or in the leaſt fatiguing it, which is too common in many kinds of exerciſe, and which often proves hurtful to tender conſtitutions, inſtead of being ſerviceable; and as waſhing performs ſeveral chief intentions,

which

which plenty of gentle exercise can only effect in a tender constitution; somewhat less exercise will answer the purpose, and yet the body be kept in its due plight. It appears that, with people who do not pursue any active employment, there may be deducted, out of the time they set a part for exercise, at least twice as much daily as is required for the purpose of washing; which acquired time may be so employed, as fully to compensate, in half a year, for any materials which may be necessary to equip a person sufficiently for the operation, and the materials which will equip one person, will supply a large family; fresh supplies of water and clean dry towels only excepted. After people have had a little practice and are become more lively and active, through the benefit of washing, from ten to fifteen minutes time will be sufficient for the purpose of undressing, washing, wiping, and dressing again. In the second place frequent washing will be found to brace and strengthen the body, refresh, enliven, and chear the spirits, in such a manner that they who are now the most averse to taking bodily exercise will, I make no doubt by the use of washing, have their resolutions so stimulated, by the acquirement of fresh vigour of body and mind, that they will not fail to take a sufficient quantity of what they may then call delightful exercise, which they will then find still farther contributes to establish and confirm their health.

And now, I hope, I have sufficiently shewn that washing will be an aid to exercise two different ways, provided that, in the course of this work, I can make it appear that washing really braces, strengthens, promotes the circulation, urine, perspiration,

ſpiration, and the ſecretions, and enlivens and chears the ſpirits, of which I make no doubt; and they who read this book throughout, may gather a ſufficient proof that there is no doubt of what I have here alledged reſpecting waſhing. Dr Buchan ſays, "Frequent waſhing not only removes "the filth and ſordes which adhere to the ſkin, "but likewiſe promotes the perſpiration, braces "the body, and enlivens the ſpirits. Even waſh-"ing the feet tends greatly to preſerve health: "the ſweat and dirt with which theſe parts are "frequently covered, cannot fail to obſtruct the "perſpiration. This piece of cleanlineſs would "often prevent colds and fevers." And although waſhing the hands and face is a common cuſtom, yet peoples own feelings indicate to them that ſuch ſlight waſhing in ſome meaſure enlivens and chears the ſpirits, eſpecially when people have been over fatigued; and if ſo, how much more will waſhing the whole body aſſiſt them? Dr Buchan, obſerves, that, "Exerciſe without doors, in one ſhape or "other, is abſolutely neceſſary to health. Thoſe "who neglect it, though they may for a while "drag on life, can hardly be ſaid to enjoy it. "Their humours are generally vitiated, their ſolids "relaxed and weak, and their ſpirits low and de-"preſſed." And tho' nothing can be more contrary to the nature of man than a ſedentary life, yet the far greater part of the human ſpecies are comprehended under this claſs. Almoſt the whole female world, and in manufacturing countries the major part of the males, may be reckoned ſedentary: and to ſuch a tender and weak ſtate are the generality of females ſunk, that phyſicians tell us it is rare to find a woman of faſhion (on account

of

of hyſteric and other nervous diſeaſes) who is able to ſuckle her own child; and the ingenious Rouſeau obſerves, that on the conſtitution of mothers, depends originally that of their offspring. There be others which are of opinion, that hereditary diſeaſes are tranſmitted from either ſex, to their poſterity; however the caſe may be, the dreadful effects of intemperance is a melancholy conſideration. It hath been ſaid that almoſt all the female world, and multitudes of the males, lead a ſedentary life; and, if one may judge from obſervation, it ſeems that at leaſt half of them are averſe to taking ſufficient exerciſe in the open air, and that many who would do it are hindered, which is very wrong. Now it ſeems that the half who are unwilling to take exerciſe, cannot properly be accounted in a good ſtate of health; they may rather be ſaid to be dead in part, and ſtinking in part: for Dr Cadogan very juſtly obſerves that the breath and perſpiration of indolent people, are never ſweet. The moſt common cauſe of diſeaſes is an obſtructed perſpiration, or what generally goes by the name of catching cold; and it is a common and true ſaying, that colds kill more than plagues. The perſpiration is by far the moſt conſiderable diſcharge from the body in a healthy ſtate; and as long as it goes on properly, people have ſeldom any complaints; but if it is obſtructed, the health muſt ſuffer; and people being leſs ſenſible of this than of the other evacuations, are conſequently not ſo attentive to the many cauſes which obſtruct it. The fear of catching cold is doubtleſs one great reaſon why nervous and tender people dare ſcarce ſtir out of their houſes in cold or moiſt weather; and, after they have once contracted an indolent habit, they become ſo dull and averſe to exerciſe, that they can

ſcarce

ſcarce be prevailed upon to ſtir abroad in any ſeaſon; and after having been long cooped up, they become relaxed, and have their pores ſo open, that then the conſequence of taking an airing without doors generally produces a ſtiff neck, a ſore throat, or perhaps ſomething of ſtill worſe tendency. Nor are their houſes capable of defending them from the attacks of cold; the very fire in a room, often produces a ſtiff neck, or pains in one ſide of the head; it being the property of fire to rarify and expand the air which comes neareſt to it; then of conſequence, to keep up the equilibrium, a conſtant current of freſh air ruſhes to the fire place, and that is it which drives the ſmoak up the chimney. Now a perſon in a relaxed ſtate, ſitting with one ſide expoſed to the fire, and the other to the current of cold air, can hardly fail of catching cold. But there are many other circumſtances which may occur in a good houſe, which will ſubject relaxed people to catch cold. The bed itſelf cannot guard them from it at all times. Above all other ſort of people they are the moſt unfit to ſleep in ſmall apartments, as they would before morning, in the act of perſpiration, take in and mix with their blood the ſame air which themſelves had tainted: whereas a pure and elaſtic air is the only ſort which can be expected to refreſh them. On the contrary, were they to ſleep in a large apartment, in cold weather, they would be ſubject to catch cold in the head or neck, except they lay ſo covered as to expoſe their noſtrils to the tainted and noxious vapours ariſing from the perſpiration of their bodies; and thus they are perpetually furrounded with a fluid which they cannot fly from, and without which they cannot exiſt; and yet

yet they are in continual dread of it. O what a pitiable ſtate is this!

It is a true proverb, that a plain garment beſt adorneth a beautiful woman. What but an evil Dæmon then could tempt men to encourage the fair females to waſte their time, their ſtrength, and conſtitutions, in ſedentary and ſauntering employments, ſuch as working with the needle, pieces of plain and uſeful cloth into holes and irregular lumps, in order to make a ſhew, which is not worth the notice of any reaſonable being; and cannot attract any thing except weak heads. The plumage of a bird or a butterfly, the flower of the field, the lily of the valley, or even the moſs which grows upon the rugged rocks is far ſuperior, in point of beauty and grandeur, to any artificial garment which can be made with hands. A lady of Ionia ſhewing a fine piece of tapeſtry ſhe had wrought, and boaſting of her ſkill and ingenuity in the work, gave occaſion to a Lacedemonian matron, to ſhew her four ſons all men of learning, probity, and good manners. Theſe, ſaid ſhe, ought to be the pride of a woman of honour; 'tis in ſuch works as theſe we merit praiſe: Plut. in his notable ſayings. Had it not been through the growing weakneſs of mankind we ſhould not of late have beheld ſuch huge loads of folly upon the heads of weak necked females, which loads muſt have been attended with many great inconveniences reſpecting both time and health; a perpetual uneaſineſs muſt attend ſuch a dreſs, eſpecially when abroad in a high wind. The head muſt be overheated at times which would make it and the parts adjoining more ſubject to take cold, which produces pains in the head, the teeth, &c. And it is ſaid, that ſuch heads have

have often been found peſtered with live animals; conſequently there muſt have been plenty of dirt, which would not fail to obſtruct the perſpiration in part, and the dirt would likewiſe be imbibed into the circulating juices, all which is highly prejudicial to health. How ſtrange is it that people who pride themſelves in making a ſhew of outward cleanlineſs, ſhould keep their bodies dirty within, and have a filthy ſkin? But whither do I wander? For were I to point out half the follies and evils ariſing from intemperance, it would take a whole volume to contain them. It hath before been obſerved that colds kill more than plagues, and that nervous and tender people are ſcarcely able by any means to avoid them. However frequent waſhing will be found to fortify the body againſt the attacks of cold in the ſtrongeſt manner. This I know by my own experience, and we are not unacquainted with the common means which are uſed for preventing colds ſeizing upon the heads of theſe who cut off their hair; as ſoon as it is cut off, and the head ſhaved, it is immediately waſhed with cold water, to prevent cold catching, and I have before obſerved that Dr Williams ſays, "They who bathe frequently are little affected "with the changes of the weather." It ſeems to me that many of the indolent ſort of people who have the greateſt need of waſhing, will at the firſt be moſt averſe to it; but let me adviſe them as a ſincere friend only to preſiſt in the practice, for a little while, and it will baniſh indolence, and make them become in love with it, as they will find themſelves more and more benefited by it. It is perhaps one of the ſafeſt and beſt diuretics in nature, as it performs the office with mildneſs, and

doth

doth not, by overheating, cauſe a relaxation of the kidneys, or any other part of the body; but on the contrary, ſtrengthens every particular part of the body, the ſtomach not excepted; and what other medicine is there known, in the univerſe, which can do this? and further, it will make a weak ſtomach crave pretty hard for victuals. Dr Buchan ſays, "A free diſcharge of urine not only "prevents the gravel and ſtone, but many other "diſeaſes, and that when the blood or other hu- "mours are diſordered, nature generally attempts "to free herſelf of the offending cauſe by the uri- "nary paſſages." In the preſent age, nature often wants aſſiſtance to enable her to expel the vitiated humours out of the body, and that in the mildeſt manner which can be invented. It is well known that ſtrong ſtimulating diuretic medicines, by overheating, &c. have too frequently cauſed ſuch a total relaxation of the filtering organs, as has produced very tragical effects in the human body. Sir Richard Blackmore tells us, "That if the kidneys have loſt their tone, and are "ſtretched to a dimenſion or capaciouſneſs be- "yond nature's ſtaple, they admit a great quan- "tity of wholeſome juices together with the ſuper- "fluous ſerous parts, and let them paſs promiſ- "cuouſly into the bladder, whence the nutritive "juices are excluded with the urine, by which "nature is defrauded of due ſupplies. In like "manner, and from the ſame defect, the liver "ſometimes ſeparates from the blood an immo- "derate plenty of bilious juices, or that at leaſt "become ſuch after ſeparation; by which means "the receptacle of the gall, pours out into the "inteſtines ſuch an immoderate meaſure of its

" bitter contents, that by a painful corroſion of " the membranes, and inſtigation of their glands, " often produces a great flux or looſeneſs, and " ſometimes dyſentric ſymptoms. If the glands " or ſecretory kernels in the lungs become flaccid, " loſe their tenſion, and grow exceſſively wide, " they not only ſeparate from the blood more " ſerous and phlegmatic humours than the ſervice " of nature requires ſhould be excluded, but like- " wiſe many wholeſome juices, which together " with them, ruſh through the channels too much " enlarged, whence the patient defrauded of re- " pair, grows lean and meagre: and when the " like faulty diſpoſition happens to the glands " planted in the ſkin and diſperſed through the " whole ſurface of the body, they let an immode- " rate quantity of ſerous mixed with wholeſome " fluids evaporate through their too open and " gaping pores, both in ſweat and inſenſible tranſ- " piration, by which inordinate evacuation the " blood is impoveriſhed, and the patient grows " feeble and very obnoxious to taking cold, while " the ſharper and more pointed parts of the air, " find free admiſſion through ſuch wide inlets to " the blood and ſpirits, and make upon them their " noxious impreſſions; whence coughs, defluctions " upon the lungs, and putrid as well as inflamma- " tory diſeaſes, often take their riſe.

" Nor is the event otherwiſe in the brain, when " the ſtrait and narrow meſhes of that wonderful " ſtructure become too lax and wide; for then, " beſides the purer, more ſubtile and volatile parts " of the blood, which are ſeparated by that exqui- " ſite ſtrainer, to be exalted, ſublimed, and con- " verted into animal ſpirits, the active miniſters of the

" the fancy and imagination, as well as of the in-
" ferior and ſenſitive government, an inordinate
" meaſure of ſerous parts are admitted, and grow-
" ing acid and auſtere in their receptacles, the
" cavities of the brain, they produce fatal convul-
" ſions in children, and often hypochondriacal
" and hyſteric ſymptoms in adult perſons." Now it appears from the diſcourſe of this eminent author, how very circumſpect people ought to be in adminiſtring heating medicines; which tend greatly to relax, eſpecially in tender conſtitutions. But to return to waſhing; it is an operation which may be performed with the greateſt decency, as all are capable of doing the work effectually by themſelves, and in private, except ſuch only as are very infirm, and ſmall children: and in the act of waſhing there will be procured at one and the ſame time, friction, exerciſe, ſtrength of body, enlivened ſpirits, cleanſing of the ſkin, a removal of the obſtructions formed on perhaps many millions of the pores of the ſkin, and the minute pores themſelves contracted into their natural ſize, in the moſt rational manner which can be imagined, and the cleanſing and ſtrengthening of the internal parts, with the other good effects before-mentioned, will follow.

All who have wrote of the plague univerſally agree that ſpongy and porous bodies of an obeſe habit, of a ſanguine and phlegmatico-ſanguine conſtitution, women, young perſons and children, perſons of a timid diſpoſition, that are poor and live hard, or are given to luxury, and ſit up late at night, are more apt to be afflicted with this diſeaſe, than the ſtrong and intrepid, lean, nervous, endued with large veſſels, &c. Therefore it

ſeems frequent waſhing will fortify the body in the beſt manner, againſt the many epidemic and endemic diſeaſes; and alſo, againſt many other diſeaſes and evils proceeding from the effects of unwholeſome air. The paſſage which I had to India, was more than ordinarily long, owing to adverſe winds, calms, &c. I had therefore the opportunity of beholding the terrible effects which the ſea ſcurvy produced amongſt us. In the paſſage, upwards of ſeven-eights of the people on board were ſeized by it, many of whom died; and half of thoſe who ſurvived were reduced to a very miſerable and pitiable condition. The diſeaſe firſt ſeized on thoſe who kept themſelves dirty, ſlept in the worſt air, and continued moſt betwixt decks, where there was a perpetual putrid and moiſt air, which was highly offenſive to the ſenſes, three months before the ſcurvy made its appearance. Several circumſtances contributed to render the air putrid and dangerous; particularly the effluvia ariſing from dirty cloaths, dirty bedding, broken meat ſuffered to lay long neglected in holes, and putrify; and tainted lungs, with other effects proceeding from indolence, &c. and there is the greateſt reaſon to believe, that had it not been for the conſtant motion of the ſhip which promotes the the circulation, &c. the diſmal effects of ſuch a noiſome air would have made its appearance much ſooner. All authors, who have wrote on the ſea ſcurvy, agree that the ſtricteſt regard ought to be paid to cleanlineſs; therefore, frequent waſhing with ſea water would be the moſt effectual means, which could be conveniently uſed in long voyages, to prevent the ſcurvy or any other diſeaſe on board a ſhip, ariſing from a putrid air, for two reaſons.

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In the firſt place, it would brace and ſtrengthen the nerves of the ſeamen; promote the circulation, perſpiration and ſecretions, ſo as to contribute greatly to keep their blood and juices in a proper ſtate; mean time it would enliven and chear their ſpirits, by which means they would be enabled to ſet a juſt value on health, baniſh indolence, take ſufficient exerciſe, and perhaps ſtrive to excel each other, in keeping their cloaths, bedding and meſs places clean; by this means the air between decks would be kept pretty good. In the ſecond place, the pores of the ſkin would be kept in their natural ſtate, and neither gape too wide, nor be obſtructed with filth. The body will therefore be much better fortified againſt any impurities, which may be mixed with the air between decks, and alſo, be much better able to endure any ſudden change of the weather upon deck: ſuch as from a pure and hot air in the day, to great dews and fogs in the night; or a ſudden change of the wind, from a warmer to a colder quarter. Upon the whole, frequent waſhing cannot fail of being the greateſt preſervative that hath yet been offered to the public, in order to prevent the ſcurvy and all other putrid diſeaſes, &c. ariſing from a noiſome or moiſt air. I do therefore ſeriouſly recommend the practice of frequent waſhings to my brother ſeamen, on account of its being highly conducive to health; and as it may alſo be a great means to reform the morals of men, and prevent multitudes from running into the greateſt follies and extravagances. Waſhing has the property of ſubduing the fleſh in a great meaſure, to the will of the ſpirit, as I ſhall endeavour to ſhew hereafter. Waſhing is very

practicable on board a ſhip, whether ſuch ſhip be large or ſmall; and conveniences may eaſily be made, ſo that it may be done with the greateſt decency; and the importance of ſeamen's lives is ſo great, both to the general good of the nation, to which they belong, and alſo of their employers, that there will be little doubt of good conveniences being made, provided ſeamen reſolve upon trying the ſimple and pleaſant experiment: there is little doubt but frequent waſhings would likewiſe, in a great meaſure, prevent camp and gaol diſeaſes; as they take their riſe from ſimilar cauſes, ſuch as impure and damp air, dirt, &c. and there is ſeldom any thing to prevent ſuch a ſalutary purpoſe from being put in practice. The fen countries, &c. are notorious for moiſt, thick air, and unwholeſome water; the moiſtneſs of the air, phyſicians tell us, is the predominant cauſe of agues; and the moiſtneſs of the air, together with turbid and unwholeſome water, the cauſe of the land ſcurvy; which two diſeaſes might in a great meaſure be prevented by waſhing, and uſing good water for diet; which water may be procured in the fen countries, and I ſhall ſhew in what manner hereafter; much more might be ſaid reſpecting the preventing and curing of many other diſeaſes, not named in this book, by the prudent application of good water; but as my deſign is not to perplex people by writing a long volume, when a little one may be of as much ſervice; I think it may be a ſufficient inducement for people to try my medicine, when I ſhew them, that waſhing frequently, and making a proper uſe of water internally, will prevent almoſt all chronic diſeaſes, cure ſeveral, and in ſhort hinder three-fourths of the miſerable

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evils now incident to Europe, and alleviate three-fourths of the remaining quarter; as the above practice and a prudent uſe of proper water internally, if duly attended to, will be the moſt famous conquerer and vanquiſher of intemperance and its inſeparable and wretched companions, viz. a numerous train of deſtructive and unnatural vices. A modern author obſerves, that the Romans never triumphed over others till they had learned to triumph over themſelves, viz. until they were themſelves become temperate, at which time they would, through ſtrength of body and mind, alſo become virtuous: and virtue, Plato ſays, is the health of a ſtrong and vigours mind; and vice the diſeaſe of a weak and imperfect one. We find that the antient Romans held bathing in the greateſt eſteem, their coſtly and extenſive baths are yet to be ſeen in many parts of the Eaſt; and as their climates were pretty warm, and admitted of bathing the greateſt part of the year, no doubt but the practice contributed very greatly to make them temperate, virtuous, and a nation the moſt magnanimous of any on earth. But, to return to my narrative, which I dropped after having recited my being a ſecond time ſet to rights by the benefit received in the run betwixt India and St Helena: after this, I continued in pretty good health, in my native country, for about the ſpace of four years, and I have reaſon to believe might have ſo continued had I purſued an active life; but it was my fortune a ſecond time to be employed in a ſedentary and inactive buſineſs (for I had not then ſtudied how to benefit by making a prudent uſe of the non-naturals). Therefore the conſequence of my continuing too much in a con-

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fined air, and in a manner inactive, and at times brooding on the unjuſt treatment and diſappointments I met with in India, &c. gave a third ſcope to the afore-mentiond diſeaſe, which proved very obſtinate and afflictive for three years; in which time I had recourſe to various kinds of medicines, ſome proved hurtful and others for a time I thought of ſervice; but the conſequence of taking internal medicines was ſuch, that when they proved of ſervice in one way, they were generally hurtful in ſome other. [However, it is not my deſign to diſcourage the prudent uſe of medicine, for medicines were certainly made for the uſe of man; but in truth, powerful medicines ought in no caſe to be admiſtered without the greateſt circumſpection, nor even ſimple ones for any length of time without precaution: feeling the pulſe, and viewing the patients countenance, is not enough to indicate the true ſtate of many patients. It ſeems more time than is generally uſed, among the poorer ſort, ought to be taken to make proper enquiry into the nature of the diſeaſe, and conſtitution of the patient before medicine is applied]. But to return from this digreſſion: cold bathing being of late years ſtrongly recommended as the beſt means to cure nervous diſeaſes, I again practiſed it both in ſalt water and freſh, but with the ſame ſucceſs as formerly, and as before mentioned the weather being either too warm, or the water too cold, prevented my receiving any laſting benefit from it: and having in the courſe of ſeven years obſerved the religious, good natured, and and affable natives of India, make a perpetual practice of waſhing themſelves and children, which they ſaid ſtrengthened them: and I being

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on account of want of health, ready to try any ſafe and probable means to acquire it, reſolved on trying the cleanly method of waſhing; begun the experiment, and in leſs than a month found great benefit by it; in leſs than three months I was a third time reſtored to health, but ſtill continue the practice of waſhing, and am far from being inclined to leave it off, as I find it to be productive of the greateſt good; it fortifies and attemperates the body, and may juſtly be called the guardian of virtue; and that which hath induced me to call it a delightful and pleaſant medicine is, becauſe I generally found myſelf ſtrengthened and cheared before I had finiſhed the operation. I have now no longer any occaſion for cordials, drams, or fermented liquors to raiſe my ſpirits, they being cheriſhed and ably ſupported by a natural ſtate of temperance; nor is any kind of artificial liquor ſeemingly able to increaſe my bodily ſtrength, it being ſuperior to moſt people's who are equal to to me in age and ſize, notwithſtanding my only drink for ſeven months laſt, hath been no other than pure water, or a mixture of milk and water, in the proportion of about one-ſixth of milk, to five ſixths of water, although I have laboured pretty hard for a good part of the time, nor do I find the leaſt occaſion for any other drink, as there is none equal in goodneſs to it: we find it hath been the general opinion of learned men, eſpecially in the late ages, that to ſubdue ſtrong inclinations and wrong habits, was a thing highly difficult, but that when they are once conquered, nothing affords ſo perfect a contentment: as reſpecting my own caſe, in regard to ſtrong inclinations and wrong habits, I had them, and I have reaſon to believe

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ſomewhat below a mean, when compared with the ſtrong inclinations and wrong habits of the generality of mankind: however, the frequent uſe of waſhing, hath enabled me to ſubdue them without regret and without any difficulty.

And there is nothing now which ſeems to hinder me from enjoying a perfect contentment, except the innumerable vices of my fellow creatures, which vices will, doubtleſs in ſome degree, give the moſt virtuous chriſtians ſome trouble and concern. The ingrafted law of nature indicates thus much.

Of the CUSTOMS *and* DISPOSITIONS, *of the Natives of* INDIA.

HAVING been converſant with the natives of India, for about the ſpace of ſeven years, I had the opportunity of obſerving their cuſtoms, manners, diſpoſitions, &c. particularly at Bombay, Surat and Cambay, which are populous places, and alſo at many towns of leſs note, ſituate betwixt the fore-mentioned places. There are a great variety of ſects in theſe places, and one general cuſtom prevails, which is waſhing themſelves from head to foot; multitudes of them waſh daily, and the reſt of them frequently, and that with freſh water; and this ſalutary and cleanly cuſtom, they purſue through all the different ſtages of life, in every ſeaſon of the year; and I have obſerved, that thoſe who live upon the banks of the ſea, always chooſe freſh water for the purpoſe rather than ſalt; but the Indian ſeamen uſe ſalt water on board of ſhip, when freſh cannot be allowed them. The predominant cauſe of that cleanly cuſtom appears to be in general owing to their finding themſelves

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ſtrengthened and cheared, and their health ſupported by it, altho' the rigid Mahometans, who are but few in proportion to the whole, may pay ſome regard to it on account of religion. They are an extraordinary healthy people, tho' the food which the generality of them live on is but mean, and water is their common drink, yet numbers of them live to a great age. In the hotteſt ſeaſons ſome ſorts of fiſh, which have been caught ſix or ſeven hours become putrid, the Indians eat them, and ſeveral other ſorts of fiſh of a coarſe and bad quality; which if the Europeans ſhould eat, the flux, &c. would leave ſcarce any of them alive. It is a great wonder to ſee one crooked made, or deformed perſon, among the Indians; and there are few, if any, chronic diſeaſes amongſt them. I do not remember the ſeeing, or hearing, of any of them, being afflicted with the gout, palſey, ſcurvy, melancholy, madneſs, rickets, rheumatiſm, &c. (and their children are ſo very healthy, that it is uncommon to hear one of them cry): and if ſuch diſeaſes do happen they muſt be very rare, notwithſtanding the air in their climate is ſubject to as great changes as in Europe. The change from heat to cold, between three in the afternoon and four in the morning, in the hot ſeaſon, is as great if not more ſo than in any part of Europe in the like diſtance of time.

And in the hot ſeaſon the change of the air in reſpect of drought, and moiſture, viz. betwixt its dryneſs in the day, and moiſtneſs in the night, occaſioned by copious dews is extreme; yet the natives ſleep expoſed to theſe dews upon the tops of their flat terraced rooſed houſes, and other parts without doors, and take no harm; but when the Europeans uſe this method, the conſequence commonly

monly produces fluxes, or other mortal diſeaſes, which ſeem to be owing to no other cauſe than relaxation which occaſions their inſides to be laden with morbid humours, and their outſides covered with ſordes and dirt, by which means many of their pores are obſtructed, and many others are left gaping too wide, which ſubjects the body to noxious impreſſions of the night dew. Mr Boyle obſerves "that upon the coaſt of Coromandel, and "the moſt maritime parts of the Eaſt-Indies, there "are, notwithſtanding the heat of the climate, an-"nual fogs ſo thick as to occaſion thoſe of other "nations, who reſide there, and even the more "tender part of the natives, to keep their houſes "cloſe ſhut up." In the time of the monſoons or rains, which laſt near five months, there are at times thick foggs, a great dampneſs is occaſioned by the exceſſive rains, and the time of the monſoons, is the moſt unhealthy to the natives as well as the Europeans, however the natives ſtand it much the beſt.

The ſmall-pox, fluxes, and fevers, ſeem to be the principal diſeaſes which carry off the natives, but no one of theſe diſeaſes make near the deſtruction amongſt the natives, as it doth amongſt the Europeans, in proportion to the numbers reſident in India. However there is reaſon to believe, that ſhould the Europeans at home, fall into the cleanly cuſtom of waſhing, and purſue it through life, they might travel the globe over, and in any habitable climate enjoy near as good a ſtate of health as the natives of ſuch climate. For I make little doubt but that the laudable cuſtom would ſoon enable them to ſet a juſt value on health, and deſpiſe intemperance. The natives of India which I have been converſant

with, are in general extraordinary temperate, inoffenſive, and harmleſs. They are not given to pride or ambition, (they know far better things) but on the contrary charitable, courteous, meek, and gentle, and bear up againſt trying misfortunes, with that true courage and fortitude, which would do honour to an European philoſopher. They are alſo people of a tenacious memory, and very able to learn either arts or ſciences, being people of a ſound judgment; they are likewiſe robuſt, and ingenious. And let their religions be what they will, they are in general a God fearing people, and ſeem naturally given to devotion, in which they ſpend a good deal of time, in the moſt humble, and ſupplicating manner, praying with great fervency: I ſay, they ſeem naturally inclined to adore, and reverence the great creator; for they have no inquiſition, nor eccleſiaſtical courts to dread; and when they ſpeak of the great creator, it is with the greateſt reverence; they are therefore far from taking his name in vain. However, there are ſome intemperate people among them, who take ſtupifying doſes of arrack, opium, bang, &c. and their leaders are too often included in this claſs, which ſometimes produces tragical effects. They ſometimes turn againſt the European companies ſervants too, but are for the moſt part patient to a wonder, long ſuffering, and put up with many injuries, and groſs inſults, rather than engage in a brutal war. But when foreigners, through fair pretences get footing among them, and afterwards commence hoſtilities, &c. againſt them by land, and commit depredations by ſea for a length of time, and will hear no reaſon, they are ſometimes neceſſitated to take up arms; but as they are gene-

rally temperate, the ingrafted law of nature directs them not to throw away their own lives in a brutal manner, nor take away the lives of others, they ſee ſo ill prepared to die; and thus, becauſe they manage their arms with reluctance, ſuch conduct is imputed unto them as cowardice. But who can charge theſe brave Indians with cowardice, when even their mothers, in theſe modern times, frequently exhibit, on account of their religion, and without the leaſt compulſion, a true courage ſuperior to that of Alexander himſelf; for they have been known even to ſet fire to their own funeral pile, and without any reſtraint continue in it, and ſuffer themſelves to conſume to aſhes. Calanus, an Indian, having taken leave of his friends, and ſettled the affairs of his houſehold, came to a large pile of wood, which he had ordered to be raiſed, placing himſelf in the middle, cauſed it to be kindled, and with an unſhaken conſtancy endured the flames, ſinging praiſes to his Gods, whilſt the leaſt power of utterance remained; Alexander the Great, being in that country, was preſent at that great ſacrifice, and confeſſed himſelf overcome by the martyr in courage, and greatneſs of mind. Plut. in the life of Alexander.

It is common for the Indians to fight with a knife, and conquer that devouring animal the Shark, when it is juſt ready to cruſh and ſwallow them up in the water; and I have ſeen them make a conſtant practice of navigating in particular parts of the gulph of Cambay, which, on account of the dangers ariſing from the prodigious tides, &c. very few Europeans durſt follow them. They are very bold likewiſe in fighting, ſeizing, and taming wild beaſts. But as they do not chooſe to be daſhed to pieces with can-

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non bullets, by plunderers, &c. who have not the leaſt right to diſturb them, they are accounted cowardly, and as it is the cuſtom of ſuch as commit rapine, &c. to plead ſome excuſe, for the purpoſe of ſcreening themſelves, the Indians are charged with being treacherous, deceitful, &c. And if there be any who may imagine I have wrote too favourably of the diſpoſitions, and actions of the Indians, I refer them to Holwell's, and Roe's account of Indoſtan, which will corroborate what I have advanced reſpecting their goodneſs, &c. And I muſt needs conclude, that the laudable diſpoſitions of the natives of India, is greatly owing to the judicious uſe they make of pure water.

The Turks uſe frequent waſhings and bathings, which wholeſome cuſtoms doubtleſs contribute not a little to enable them ſtill to continue a people of good morals; for we find they are exceeding temperate, juſt in their dealings; and they too, as well as the forenamed Indians, ſeem naturally given to devotion, in the practice of which they are very ſincere. And Dr Brookes, the Geographer, ſays, they are charitable to ſtrangers, let their religion be what it will; and that no nation ſuffers adverſity with greater patience than they.

Now, I hope it doth in ſome degree appear by what hath been ſaid of the Romans, the natives of India, the Turks, myſelf, &c. that waſhing doth in a great meaſure ſubdue the fleſh to the will of the ſpirit; and I would endeavour to ſhew, that waſhing has that property; but as there are many fixed parts, and even circulating fluids, in the human body, whoſe offices and properties have only been gueſſed at, by the moſt able and ingenious anatomiſts; and as no one hath been able

to determine, whether the reſidence of the Soul is in any particular part, or is diffuſed through the body, it need not be expected that my endeavours will be any more than ſuperficial. In the firſt place it is well known, that people who labour moderately without doors, are the ſtrongeſt both in body, and mind, the moſt healthy, the leaſt affected with that pitiable weakneſs, pride; the leaſt ſubject to become drunkards, and generally people of the beſt morals; and their ſtrength, their healthy and lively complexion, indicate to us, that their blood and juices are moſt pure of any people's in general. On the other hand ſedentary and indolent people, are in general juſt the reverſe, eſpecially, if they indulge themſelves in taking more nouriſhment, than they can eaſily digeſt, but ſome are more and ſome leſs addicted to vice.

I have before obſerved, that Dr Cadogan tells us, the breath and perſpiration of indolent people are never ſweet, (this is too true, and may generally be proved); of conſequence it follows, that the blood aud juices of ſuch people are foul, and in ſome degree morbid. Cutaneous diſeaſes are much more common amongſt indolent and ſedentary people than the out door labourers; which is another proof of a foul inſide, which generally proceeds from a relaxed and weak ſtate of the bodily organs, they being no longer able to perform with vigour their reſpective functions. Pride is very apparent in the ſedentary and indolent: do but obſerve the generality of thoſe who ſit crooked at their employ, and have the natural courſe of circulation retarded, and other neceſſary functions hindered in a confined air; for inſtance, one who ſits croſs

croſs legged the greateſt part of the day, will frequently exhibit that vice, in a more than ordinary degree: And we find that numbers who fall into various chronic diſeaſes, are commonly the moſt perverſe and ſtuborn in their tempers, frequently changing their diſpoſitions, and running into ſuch extravagancies, as exhibit a great weakneſs of mind, which evil ſeem to proceed from a weakneſs of the body, and a vitiated ſtate of the humours; theſe unhappy people are therefore very far from having their fleſh ſubſervient to the will of the ſpirit. There are many drunkards, (whoſe conſtitutions are not quite deſtroyed,) who, when they are ſet upon a debauch, continue their career, and ſcarce ſtop two days together, until their money is ſpent; but when it is gone, and they are labouring for more, they often gain ſtrength and reaſon to forbear the practice for ſome time after they have acquired more money.

The latter part of this account ſeems to indicate, that the more vigorous a man is, the abler he is to hold out againſt vice; and the fore part, juſt the contrary, as drunkenneſs never fails to weaken both body and mind. And we find likewiſe, that divines in all ages have preached up temperance, and ſtrongly recommended it, as a great means to enable men to forſake vice, and increaſe in virtue. It is a fact, that in a ſtate of temperance, the blood and juices are the moſt pure, and alſo the body and mind in their greateſt vigour. It appears then, upon the whole, that waſhing has the property of ſubduing the fleſh, in a great meaſure, to the will of the ſpirit, by ſtrengthening the body, and enabling it to expel the vitiated, morbid, obſtructing, and offending humours, and ſubſtance,

by means of increaſing the circulation, urine, perſpiration, and the ſecretions in general. If it were neceſſary more might be ſaid on this head; and I ſhall give a few more hints which may perhaps tend to encourage people to try the experiment.

"As the actions or conditions of the body, "ſo alſo the diſeaſes thereof may be reduced "to three general heads, viz. thoſe of the ſolids, "and fluids, and thoſe compounded of both. The "ſolids, that is the bones and fleſh may be diſor-"dered five ways, viz. rendered turgid by tumors, "cut by wounds, corroded by ulcers, &c. removed "out of their places or diſcontinued by fractures "and contuſions. Diſeaſes of the fluids are in the "blood or ſpirits. Thoſe of the blood are two, "ſuch as thicken and retard its motion, or ſuch as "attenuate and accelerate it. To the laſt kind, the "fever and feveriſh affections only belong. All "other diſeaſes of the blood belong to the former. "The diſeaſes of the animal ſpirits ariſe either "from an intermiſſion or retardation of their mo-"tion, or a diminution of their quantity, or diſ-"order in their quality. Laſtly, diſeaſes of the "fluids, whether thoſe of the blood or ſpirits, are "ſeldom long confined thereto, but come to diſturb "and impede ſome of the functions of the ſolid "parts, and at laſt corrupt the ſubſtance of the ſolids "themſelves. Hence ariſe compounded or com-"plicated diſeaſes, which are infinitely various. "Almoſt every diſeaſe is owing to the bad regula-"tion of our lives, either from too much or too little "ſleep, too much or too little exerciſe, &c. ſome-"times they are cauſed by things without, and "very often by an abuſe of food; that is by our in-"intemperance in eating and drinking, which is ſo

"much

"much the more injurious to us, becauſe it affects "us inwardly."

The above is the opinion of able phyſicians. It hath been ſaid, that the diſeaſes of the blood are two, ſuch as thicken and retard its motion, or ſuch as attenuate and accelerate it. And that, to the laſt kind, the fever and feveriſh affections only belong; and that all other diſeaſes of the blood belong to the former. By this, and what follows, it appears that by far the greateſt part of the diſeaſes, incident to the human body, are owing to the blood being too thick, in which ſtate the circulation is languid, and a foul morbid ſtate of it, and the juices enſues, which often occaſions fevers, as witneſs the following. Sydenham tells us, "that a fever is nothing "elſe but the effort of nature, to free herſelf of "ſome morbific matter which ſhe finds injurious, in "order to eſtabliſh a better ſtate of health." And Dr Williams informs us, "that a fever is not always "a primary diſeaſe, but is often the ſymptom of "other maladies as a cachexy, ſcurvy, phthiſis, "lues-venerea, dropſy, &c. and renders them more "cruel and dangerous; however, ſays he, it is not "always pernicious to the human race, but ſome-"times vanquiſhes its own cauſe, and ſupervening "to other diſeaſes, expels them out of the body; "thus palſies, epilepſies, convulſions, ſpaſmodic, "and hypocondriac affections, have been cured by "fevers; and many valetudinarians have, by a fever, "been reſtored to a healthful and vigorous conſti-"tution. The cauſe of fevers is not heat alone, "ſays Hippocrates, de vet medic; but heat and bit-"terneſs together, heat and acidity, heat and ſalt-"neſs, and innumerable other combinations in the "blood." It is found nevertheleſs, by experience,

ſays

ſays Dr Williams, " that ſome perſons from ſound " and perfect health, where there has been neither " a plethora or any cacochymical diſpoſition to " cauſe it, have fallen into a fever; becauſe " perhaps ſome very extroardinary alteration in the " air, or ſome great change in their way of living, " or ſome conſiderable error in the ſix non-natu- " rals has happened." Sound bodies may, on ſuch occaſions, be ſeized with a fever, only to the end that their blood may acquire a new ſtate and condition thereby to accommodote itſelf to the alterations of the air, way of living, &c. It appears then upon the whole, that even fevers may in general be prevented by the prudent uſe of waſhing, as it attemperates and fortifies the body in the ſtrongeſt manner againſt the ſudden changes of the weather, or noxious exhalations in the ambient air, and as waſhing will keep the blood and juices pure, ſcarce any defect need be feared in the animal ſpirits, except ſuch as proceed from wounds, fractures, bruiſes, &c. which caſualties ſometimes may happen even amongſt the temperate people; however, if waſhing becomes general, ſuch pitiable misfortunes may perhaps be reduced to one tenth of the number we now have: as thoſe diabolical inventions of war, duelling, drunkenneſs, and other brutiſh, unmanly, and unnatural cuſtoms may in great meaſure, ceaſe. Phyſicians tell us, that water in the act of cold bathing, enters by the pores of the ſkin, mixes with the blood and dilutes all the juices. Tranſpiration is uſed by ſome authors, for the ingreſs or enterance of the air, vapour, &c. through the pores of the ſkin, into the body. Cardan by this kind of tranſpiration, accounts for the prodigy of a woman whoſe daily urine weighed twenty ſeven pounds. though all the food ſhe took, both dry and liquid, did

no

not exceed four pounds. Dr Baynard alſo ſuſpects ſome ſuch tranſpiration to be the caſe in hydropical perſons. It is proved by the Florentine experiment of filling a globe of gold with water, that the globules of water are ſurpriſingly ſmall, for when the globe was preſſed with great force, it cauſed the water to tranſude through the pores of that compact and metal, without any change, the globules not being ponderous, of elaſtic nature, nor liable to fracture. Phyſicians inform us, that water is admirably adapted for a ſolvent, or readily entering the pores of ſalts, and coming in full contact with all their particles, and thus it will paſs where air cannot, on account of its moiſture or lubricating power, and will therefore ſoak through the cloſe pores of a bladder, which bladder will contain air, although it be ſtrained and greatly ſtretched by the elaſtic ſpring of the air contained in it. Hence it appears, that when moderate cold water, hath by its conſtringing and cleanſing power, reduced the pores of the ſkin to their natural ſize, and ſtate, there will ſtill be left an enterance for pure water, and alſo for ſuch ſmall particles of air as are friendly to nature, whilſt the larger and more ſharp pointed particles of air will be debarred without, and prevented from making their noxious impreſſions within, ſuch as raiſing violent and unnatural conflicts in the body, as coughs, deffuctions upon the lungs, and putrid as well as inflammatory diſeaſes. Now, by the foregoing obſervations, it is plain, that pure water in the act of waſhing, with the help of friction, muſt enter the body, mix with the blood, and dilute all the juices, and that in a moderate degree, or even as the operator chooſes, and this, at any ſeaſon of the year: Water is the vehicle for all the nouriſhment

we take, and is the greateſt diſſolvent that we have and as the too great conſiſtence, or over thickneſs of the blood, is the cauſe of almoſt all the diſeaſes incident to the human body, it appears that the water which is mixed with the blood in the act of waſhing, muſt have extraordinary good effects, internally, as well as upon the external ſurface, or ſkin; for it ſeems very probable, that the purer the blood is, the purer and better prepared will the animal ſpirits be to co-operate with the ſoul.

I have before repreſented waſhing frequently, as the moſt famous ſtimulant to bodily exerciſe, it having the property of bracing, and ſtrengthening the body, and cheriſhing the ſpirits, &c. And that bodily exerciſe ſtill further contributes to the health, and ſtrength of body and mind, may be gathered from the following accounts of able authors. Exerciſe increaſes the circulation of the blood, attenuates and divides the fluids, and promotes a regular perſpiration; as well as a due ſecretion of all the humours; for it accelerates the animal ſpirits, and facilitates their diſtribution into all the fibres of the body, ſtrengthens the parts, creates an appetite, and helps digeſtion: whence it ariſes, that thoſe who accuſtom themſelves to exerciſe, are generally very robuſt, and ſeldom ſubject to diſeaſes. And Dr Cadogan tells us, as I have before obſerved, " that " inactivity forms obſtructions, in theſe exquiſitely " fine parts, upon which the health and vigour, " both of body and mind depend entirely, and " lays the foundation of many diſeaſes to come, " which the induſtrious and active never feel. " He further ſays, that no man can have theſe de- " lightful ſenſations, who lives two days with the " ſame blood, but muſt be languid and ſpiritleſs;

" that

" that in a ſtate of inactivity the old humours paſs off
" ſlowly, and inſenſibly perſpiration is conſiderable.
" He alſo very juſtly obſerves, that inactivity forms
" obſtructions in theſe exquiſite fine parts, upon which
" the health and vigour of body and mind depend entirely." Now, cold bathing removes obſtructions, which are not too ſtrongly riveted, and waſhing will do the ſame; but the frequent uſe of waſhing, will effectually prevent obſtructions from forming, as well in the internal tubes and glands, as in the ſkin, eſpecially when proper water is uſed for internal purpoſes. Therefore the prudent uſe of frequent waſhings, with the internal uſe of good water, will keep in their natural ſtate theſe exquiſite fine parts, upon which the health and vigour, both of body and mind depend entirely; and prevent the foundation being laid of many diſeaſes, (which for want of waſhing might come), and alſo the evil conſequences ariſing from a weak ſtate of the mind. Now, from what has been lately ſaid, here is another appearance, that waſhing will in a great meaſure ſubdue the fleſh to the will of the ſpirit; for I preſume that frequent waſhing, will ſoon enable people to ſet a juſt value on health, which will of conſequence induce them to look out for good water, for the uſe of diet, &c. The animal ſpirits are a very ſubtile fluid, ſuppoſed to be prepared from the more ſubtile and volatile parts of the blood, by that exquiſite ſtrainer the brain, and thence diffuſed into all parts of the body, for no leſs a purpoſe than the performance of all animal and vital functions.

The ableſt authors acquaint us, that our perceptions and actions, are ſuppoſed to depend on the facility with which theſe ſpirits paſs from the

brain

brain to the nerves, and back from the nerves to the brain: for if the brain, the cerebellum, or the ſpinal marrow be hurt, there happens in all the parts, where the nerves are diſtributed, which proceeds from the diſordered part, convulſions and palſies; and if any nerve be tied or cut, the parts below the ligature loſe their ſenſes and motion, while thoſe above continue in their former ſtate. It ſeems that even the goodneſs of our perceptions and actions greatly depend on the good condition of the animal ſpirits, and their paſſages; how highly neceſſary then is it, for men to abſtain from intemperance? a thing, which if continued, never fails to produce the moſt dreadful effects in both the body and mind of man. The more the animal ſpirits and nerves are hurt by intemperance, the leſs we are alive, and the leſs able are the ſpirits to co-operate with the ſoul, or govern muſcular motion; and thus we find, that ſome, who are become relaxed and dull, think it a trouble even to lift their hand to their head, and many appear inclined to turn day into night, and night into day; notwithſtanding, it is well known that the morning air is much the beſt, and that it is better and more natural to be up with the ſun, and make uſe of its light, than to breath in an air tainted by the effluvia ariſing from putrid candles, and rendered moiſt by the return of the falling vapours.

Now the predominant cauſe of the prepoſterous cuſtom of turning day into night, ſeems to have taken its riſe from intemperate and debilitated people, many of whom think it a trouble to go to bed, and would take it as a great puniſhment were they obliged to riſe early in the morning: thus

thus one kind of intemperance begets another, and through the abuſe of the non-naturals in Europe in youth, as well as in other periods, it may be ſuppoſed that few in the preſent age arrive at full perfection, reſpecting their ſtrength of body and mind: the firſt cauſes of palſies, melancholy, and madneſs are frequently the fruits of intemperance. Theſe three diſeaſes all ſuppoſe a weakneſs, and a defect in the nerves or animal ſpirits; and how far the fleſh is from being ſubſervient to the will of the ſpirit, in theſe three diſeaſes, and eſpecially in the laſt, is too notorious. Yet we find, that when all other medicines have failed, cold bathing hath often proved an effectual cure in all the three caſes; and I make no doubt, but that waſhing will have as good an effect in ſuch obſtinate caſes, much more prevent the cauſe of ſuch alarming diſeaſes. Therefore it may be concluded, that the frequent and prudent uſe of waſhing, with proper water for the uſe of diet, will by invigorating the body, diluting, cleanſing, and attemperating the blood and juices, reduce the glands, the nerves, the animal ſpirits, &c. to their natural ſtate, and keep them ſo; by which means the ſpirits will act with vigour, in the various parts of the body, and much more conformable to the will of the ſoul, which will then be much abler to command the paſſions, and with the aſſiſtance of Providence defeat Lucifer's intentions, viz. intemperance, and a train of woeful and diſmal vices, with an unſhaken, undaunted, and magnanimous reſolution.

Phyſicians obſerve, "That ſweat in its primary "effects is always burtful, that is, whilſt it ſur-"rounds the body and adheres to the ſkin; and al-

" though perſpiration is inſenſiblely performed, ſe-
" veral authors inform us, that it is by far the moſt
" conſiderable diſcharge from the body." The uſe of perſpiration, ſay the phyſicians, " is to " preſerve the ſuppleneſs of the papillæ of the " ſkin, to carry the ſaline particles off from the " blood, and by this means to render it more " pure, to preſerve the body from various diſeaſes, " and to contribute to the cure of the moſt dan-" gerous diſtempers." They likewiſe acquaint us, " That the matter of inſenſible perſpiration is a " fine ſubtile fluid, which exhales from the body, " in the form of vapour, and proceeds from the " whole ſurface, and every cavity of the ſkin, that " it is of an aqueous and ſaline nature, and ſeems " to have a great analogy with urine; becauſe in " a healthy ſtate the increaſe of the one dimi-" niſhes the other." The perſpired matter, being of the nature of urine, muſt be highly acrid, and putrid too, when it hath continued ſome time out of the body; and that a great quantity of it adheres to the ſkin, and cloths adjoining, is plain from their being much fouled by it. Now, as it is dangerous if continued within the body, it muſt be hurtful to have part of it, the ſordes of ſweat, &c. imbibed and mixed again with the blood, and that this is the caſe, is the general opinion of phyſicians, and is without a doubt. The ſordes and filth which adhere to the ſkin, cannot fail of being otherwiſe than dangerous, as they obſtruct the pores, and prevent a regular and equable perſpiration. " It is remarkable," ſays Dr Buchan, " That in moſt eaſtern countries cleanlineſs makes " a great part of their religion: The Mahome-" tans, as well as the Jewiſh religion, enjoins

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" various bathings, waſhings, and purifications. " No doubt theſe were deſigned to repreſent in " ward purity, but they are at the ſame time cal- " culated for the preſervation of health; however " whimſical," ſays he, " theſe waſhings may ap- " pear to ſome, few things would tend more to " prevent diſeaſes than a proper attention to " many of them. Frequent waſhing," ſays he, " not only removes the filth and ſordes which " adhere to the ſkin, but likewiſe promotes the " perſpiration, braces the body, and enlivens the " ſpirits; even waſhing the feet, tends greatly to " preſerve health. The ſweat and dirt with which " theſe parts are frequently covered, cannot fail " to obſtruct the perſpiration; this piece of clean- " lineſs," ſays he, " would often prevent colds " and fevers." I have heard it affirmed by a credible witneſs, that a ſeaman in the Indian ocean, who thought it a trouble to have ſweaty feet; in order to ſtop the ſweat, ſmeared them over with pitch, which error ſoon occaſioned an almoſt total loſs of his ſight, and that it was ſome time before the ſurgeon could reſtore it. Now, by the above and many other circumſtances, it appears that a regular and equable perſpiration is by far the moſt ſalutary; and it appears, the moſt rational and natural, that every ſuperfluous and offending humour, which will go off by ſweat or perſpiration, ſhould be allowed a natural paſſage through that part of the ſkin, which is in its own neighbourhood. I ſay a natural paſſage; for in order to preſerve health and vigour, the pores of the ſkin, ought neither to be gaping too wide nor yet obſtructed with filth. People who have it in their power to change their apparel often, and can

ſee no dirty appearance upon their ſkin, may imagine their pores are not obſtructed by it, but the matter which they perſpire is commonly more glutinous and adheſive than that of the more laborious claſs of people; and if the affluent chooſe to diſcover whether they have or have not cutaneous obſtructions, occaſioned by the adheſion of ſordes, they need only waſh and obſerve the filth which riſes from the ſurface and pores of their ſkin, through the effect of pure ſoft water, and friction only. Frequent waſhing is therefore undoubtedly the moſt effectual means whereby to obtain a regular, equable, and natural perſpiration from every part of the human ſtructure; and phyſicians tell us, as I have before obſerved, that whilſt perſpiration goes on properly, we have ſeldom any complaints; but that when it is obſtructed, health muſt ſuffer. "The brutes themſelves, ſays Dr Buchan, ſet us an example of cleanlineſs. Moſt of them ſeem uneaſy, and thrive ill if they are not kept clean; a horſe that is kept thoroughly clean, will thrive better on a ſmaller quantity of food, than with a greater where cleanlineſs is neglected; even our own feelings, ſays he, are a ſufficient proof, of the neceſſity of cleanlineſs. How refreſhed, how chearful and agreeable does one feel, on being ſhaved, waſhed, and dreſſed, eſpecially when theſe offices have been long neglected? Moſt people, ſays he, eſteem cleanlineſs, and even thoſe who do not practiſe it themſelves, often admire it in others. Superior cleanlineſs ſooner attracts our regard then even finery itſelf, and often gains eſteem where the the other fails. The human body, as it is naked when diſrobed, and hath ſuch wonderful pliant,

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" and active limbs, ſeems by far the beſt adapted, " of any terreſtrial creature, for the purpoſe of " making and keeping itſelf clean." And ſuch a high eſteem have the natives of Aſia for it, that they count it very unnatural not to waſh; and the Europeans a dirty people, becauſe they do not waſh; and by what I have learned from that good natured people, the Europeans would be held in much better eſteem by them, were they to practiſe the ſalutary cuſtom; and were the practice of frequent waſhing, to become pretty common in Europe, I muſt needs think, that in this preſent generation, ſuch as practiſed it, would perhaps look on them who neglected it, as unnaturally bemired and weakned by weltering in their own dirt. However in the primitive ages of the world, there was leſs need of waſhing, as people generally lived nearer to what nature directed them (their blood and juices were purer); they therefore had not ſo many family diſeaſes to prevent or waſh away; nevertheleſs we find waſhing and bathing was cuſtomary in the Eaſt, witneſs the Romans and others. Several authors give us compendious theories of diſeaſes. Benetoke deduces all human diſeaſes from the ſcorbutus; Muſgrave from the arthritis; Dr Woodward from the bile; ſome from the venereal virus, which has lurked in the ſeed, ever ſince the ſin of Adam; ſome from extraneous ferments formed in or out of us; and ſome from worms. Now, by the variety of opinions of able men, we may conclude how difficult a matter it is to form a right judgment of the ſeed of all diſeaſes; but, whether any particular evil above named is the ſeed of all diſeaſes, or whether a combination of two or more of them creates diſeaſes, it ſignifies

no great deal, ſo long as the prudent uſe of water will in moſt caſes keep under reſtraint ſuch ſeeds, and highly contribute to make us the right heirs of eternal felicity beyond the grave. Eternal felicity is the chief prize we have to run for; every other thing here below, when put together, in reſpect of real value, bears none, no not the leaſt proportion to it: for we ſee that worldly honours and worldly riches too often create pride, irreligion, and an inability to engage with ardour for the chief prize; to obtain which was the very end for which we were created. There is no ſuch thing as real pleaſure to be obtained, even by thoſe who abound with worldly wealth, if they live in a ſtate of intemperance: but, ſuppoſe there was a little pleaſure for a few fleeting years, neither the tranſient pleaſure, nor the ſhort ſpace of time which is alloted for human life, can bear any proportion to heavenly and eternal felicity; I ſay no proportion. Me thinks, that word eternal ought to have a deep and laſting impreſſion on the minds of men, and widely different muſt its effects be upon the minds of ſuch as are virtuous, and ſuch as are vicious; eſpecially, were the vicious only capable of making ſerious reflections, and paſſing a right judgment on their prepoſterous and enormous follies. What a ſhocking ſcene is it to behold men endowed with reaſonable ſouls, and yet buſy in exhibiting their ingratitude, and rebellion againſt God their maker, who hath denounced ſuch dreadful woes againſt tyrants, oppreſſors, drunkards, and many other ſorts of criminals. Surely intemperance hath weakened great numbers, ſo far as not to be able to reſiſt the temptations of the diabolical ſpirit; therefore,

I muſt again earneſtly recommend the prudent uſe of water to all ranks of people, through life, that they may be the better able to live and die in the fear of God, and in the love of his divine ordinances; Death being a debt that we muſt all pay. The following, which is taken from a modern book of arts and ſciences, ſeems to ſhew, that life cannot be expected to ſubſiſt for any great duration of time: "as therefore health conſiſts in regular "motions of the fluids, together with a proper "ſtate of the ſolids, it is next to a miracle, that "ſo complicated a machine ſhould hold out to "extreme old age; for a body ſuch as ours, can-"not poſſibly retain life for ever, which is not "difficult to account for, becauſe the membranous "fibres of the blood veſſels which were made "elaſtic, in order to drive their included juices "forward, become gradually harder, and at "length rigid; whence they are rendered incapa-"ble of executing their offices, and the ſecretions "of the ſeveral parts are diminiſhed by degrees; and "that this is the caſe, appears from diſſecting of "the bodies of very old people, the inſides of their "arteries being ſometimes found oſſified here and "there, whereby they had almoſt entirely loſt their "ſpringineſs, and the orifices of the natural ducts "are often obſerved to be quite cartilaginous."

Human life may, in ſome meaſure, be compared to a fire, which, by a regular ſupply of proper fuel, may be kept in a glowing and pretty equal degree of heat, provided it hath proper vent holes for a ſupply of freſh air, and to let paſs the noxious fumes and filth it endeavours to diſcharge itſelf of; but, if the vent holes are partly obſtructed the fire will weaken, and if they are totally

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obſtructed it will ſuddenly die, or if too much proper fuel is ſupplied at a time, it will deaden for a while, or perhaps be choaked and wholly extinguiſhed: if the ſupply of proper fuel be too little, the fire will fail, and without any ſupply it muſt enevitably die. If fuel of a bad quality is thrown on, it will decreaſe and perhaps die; and ſhould ſuch ſubſtances only be thrown on as will not burn, the fire cannot long exiſt: even ſo the human body, for if it hath a regular ſupply of proper food, it may be kept in an even healthy and vigorous ſtate, provided it hath proper vent holes for a ſupply of freſh air, and to let paſs the noxious vapours and excrements it endeavours to diſcharge; but if the vent holes are partly obſtructed, life will weaken; and if they were totally obſtructed the conſequence would be ſudden death: or if too much proper food is taken into the ſtomach at a time, it weakens life for a while, and ſometimes choaks and totally deſtroys it. If the ſupply of proper food be too little, life will fail, and without a ſupply, it will preſently vaniſh away: if diet of a bad quality be taken into the ſtomach, life will decreaſe and perhaps periſh; and ſhould ſuch ſubſtances only be taken into the ſtomach as cannot be digeſted, life cannot long exiſt. Having before obſerved, the good effects which a heavy atmoſphere had on me in the courſe of my diſorder, and having of late lived in a regular ſtate of temperance, which hath enabled me to experience in a high degree its wonderful effects on the human body, I ſhall inſert the following as it agrees with my obſervations, and hath been produced by ingenious and able men; by which people may be able to learn the times when there

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is the greateſt neceſſity to waſh, brace, ſtrengthen, and help forward the circulation, perſpiration, and the ſecretions, &c. in order to keep the blood and juices pure, and the body in a healthy and vigorous ſtate: "As it is in the atmoſphere that "all plants and animals live and breathe, and as "that appears to be the great principle of moſt "animal and vegetable productions, alterations, "&c. there does not ſeem any thing in all philo-"ſophy of more immediate concernment to us "than the ſtate of the weather, and a knowledge "of the great influence it has on our bodies, "and the ſenſible alterations we undergo thereby: "in effect, all living things are only aſſemblages, "or bundles of veſſels, whoſe juices are kept mov-"ing by the preſſure of the atmoſphere, and which "by that motion maintains life; ſo that any alte-"ration in the rarity or denſity, the heat, puri-"ty, &c. of that, muſt neceſſarily be attended "with proportionable ones; in theſe what vaſt, "yet regular alterations a little turn of weather "makes in a tube, filled with mercury, or ſpirit of "wine, or in a piece of ſtring, &c. Every body knows "the common inſtance of barometers, thermome-"ters, &c. and it is owing partly to our inatten-"tion, and partly to our unequal intemperate "courſe of living, that we do not feel as great "and regular ones in the tubes, chords, and fibres "of our own bodies. It is certain a great part of "the brute creation, have a ſenſibility and ſaga-"city this way beyond mankind, and yet with-"out natural means or diſpoſition thereto more "than we, except that their veſſels are regular "barometers, &c. affected only from one external "principle, the diſpoſition of the atmoſphere;

"whereas

" whereas ours are acted on by divers, from with-
" in as well as without; ſome of which check,
" impede, and prevent the action of others. The
" variation of the atmoſphere is very apparent,
" when there is any alteration in the meteors of the
" air for rain, ſudden fierce ſhowers, fogs, hail,
" ſnow, lightning, thunder, winds from various
" quarters, ſtorms, whirlwinds, drought, &c. are
" certain indications, that the atmoſphere will
" ſoon become of a different weight. The dif-
" ferent ſeaſon of the year, alſo produce an almoſt
" incredible variation; hence an infinite number of
" effects depending on the action of the air, are in a
" perpetual viciſſitude and inconſtancy: accurate
" obſervations, however, continued almoſt a century,
" have at laſt enabled us to determine the greateſt
" and leaſt gravity of the air, known in Europe;
" for it hath been found that the greateſt weight
" of the atmoſphere is in equilibrio with 31 inches
" of mercury, in the barometer, while the leaſt is
" only equal to 27; ſo the difference is almoſt
" a tenth part of the greateſt weight; and be-
" tween thoſe limits the variation of the atmoſ-
" phere's weight is included. We may therefore
" take 29 inches for the mean altitude of the
" mercury, and conſequently its weight for the
" mean weight of a column of air of the ſame
" baſe: hence the difference of preſſure on the
" body of a man, allowing it to contain 14½
" ſquare feet, will be nearly equal to 3980 pounds
" troy; this remarkable difference muſt greatly
" affect the animal functions, and conſequently
" our health. If a perſon for inſtance be aſthma-
" tical, he will find his diſorder increaſe with
" levity of the air; for ſince a pure denſe elaſtic

" air

" air is alone capable of diſtending his lungs in " reſpiration, it will be leſs capable of performing " the ſame office when its weight and elaſticity " are decreaſed, and conſequently the valetudina- " rian will find his difficulty of breathing increaſe " in proportion. It is common to conſider the " air as heavieſt in foggy weather: but, the con- " trary is true, for the air is actually heavieſt in " fine clear weather; the reaſon for this error flows " from our miſtaking the cauſe. When the fibres " and nerves are braced, and conſtringed by the " great preſſure of the air, the blood-veſſels act " with their full power and natural vigour, a " proper velocity is given to the fluids, and a " greater momentum to overcome obſtructions in " the capillaries: hence we find ourſelves alert " and light, and thence fancy that the air is light " alſo. On the contrary when this preſſure is " leſſened by near 3980 pounds, the fibres are re- " laxed, the contractile force of the veſſels dimi- " niſhed, a languid circulation enſues, obſtructions " &c. happen, and produce agues, fevers, aches, " &c. in ſome; and in all, a ſort of indolence or " gloomy inactivity and heavineſs; conſequences " which we imagine reſult from the heavineſs of " the air, whereas they, in reality, flow from its " levity."

It hath been ſaid, that the different ſeaſons of the year produce an almoſt incredible variation in the atmoſphere; and as a greater weight of it raiſes the quickſilver in the barometer, increaſes the circulation, perſpiration, ſecretions, &c. and cauſes the pulſe to beat ſtronger and larger, I ſhall here inſert the words of an able author, reſpecting the variation of the pulſe, in the different ſeaſons of the year, &c. " when after the

" pre-

" predominancy of a weſt or ſouth wind, it be-
" comes north or eaſt, the pulſe is ſtronger and
" larger, as alſo, when the quickſilver riſes in the
" barometer. But, when the atmoſphere is
" light, humid, rainy, with a long ſouth wind;
" as alſo, where the life is ſedentary, the ſleep long,
" and the ſeaſon autumnal, the pulſe is languid and
" ſmall, and the perſpiration decreaſed. In May it
" is great and ſometimes violent; in the middle of
" ſummer quick but weak; in autumn ſlow, ſoft and
" weak; in the winter hard and great. A draſtic
" purge and an emetic, render the pulſe hard quick
" and weak, with loſs of ſtrength; chalybeats
" render it great and robuſt; opiates and the like,
" render it ſmall and weak, and decreaſe the elaſtici-
" ty of the ſolids." Now it appears from what has been ſaid, that changes in the atmoſphere has exceeding powerful effects on the human body, and that there is the greateſt neceſſity to waſh often in the autum, the ſummer, and in all other ſeaſons of the year, when there is fogs, moiſt, and rainy weather, or in other words, when the barometer continues low for the ſeaſon of the year, and particularly when a chronic diſeaſe, grief, ſorrow or ſadneſs, renders the pulſes ſlow and weak; which things point out a languid circulation. It hath lately been urged, that here does not ſeem any thing in all philoſophy of more immediate concernment to us, than the ſtate of the weather, and a knowledge of the great influence it has on our human bodies, and the ſenſible alterations we undergo thereby; but Dr Williams, as I have before obſerved, hath informed us, " that thoſe who
" uſe cold bathing frequently are little effected
" with the changes of the weather; and from my

own

" own experience, and the obſervations I have made " on the natives of India, I dare venture to affirm, " that waſhing frequently will have as good an " effect in regard to fortifying the body againſt " the changes which happen in the atmoſphere " and weather." In another place it hath lately been ſaid, " When the fibres and nerves are braced " and conſtringed by the great preſſure of the air, " the blood veſſels act with their full power and " natural vigour, a proper velocity is given to the " fluids, and a greater momentum to overcome " obſtructions in the capillaries. Hence we find " ourſelves alert and light; on the contrary, when " this preſſure is leſſened by near 39.80 pounds, " the fibres are relaxed, the contractile force of " the veſſels diminiſhed, a languid circulation en- " ſues, obſtructions, &c. happen, and produce a- " gues, fevers, aches, &c. in ſome, and in all a " ſort of indolence or gloomy inactivity and heavi- " neſs." Now, by the above, it ſeems a regulator is wanted to keep the human body and mind in health and vigour, and pure water above all other medicines will beſt ſupply that purpoſe; for it will not only prevent obſtructions from forming in the time of a light atmoſphere, but remove ſuch as are formed, if not very obſtinate ones. Thus the prudent uſe of pure water may be of more ſervice to mankind than all the diſtilled ſpirits and fermented liquors, produced from grapes and corn, notwithſtanding they are acquired at ſuch an enormous expence. I have already obſerved, that Dr Cadogan tells us, " the ſtomach wants wine no more than the noſe

" does ſnuff, and that water is the element that " dilutes and carries off crudities and indigeſ- " tions." Theſe truths are confirmed to me by my own experience; and the water which is taken into the ſtomach ought doubtleſs to be as pure as can be got.

Cautions to be obſerved in regard to Waſhing.

BEFORE I proceed to explain the method of waſhing, which I think moſt convenient, it may be requiſite to caution people not to indulge themſelves in waſhing with water which is even ſo warm as new milk; for this would have juſt the contrary effects of the water which I have indicated ſhould be ſuch only as is not diſagreeably cold, and would relax inſtead of bracing, eſpecially were the ambient air as warm as in the heat of ſummer. It is well known, that warm baths, vapour baths, &c. never fail to relax and weaken the body, and open the pores of the ſkin, &c. too wide, by which conduct the circulation becomes languid, and the body rendered ſubject to catch cold on the ſlighteſt occaſions: therefore the conſequence of uſing warm water would be letting in diſeaſes upon the body, inſtead of fortifying it againſt their attacks, which would be quite wrong. However, as a temporary relief in caſes of pains and oppreſſions of the head and breaſt, &c. is often obtained from a partial uſe of the warm bath, I ſhall inſert the following, which is taken from a modern Dictionary of Arts and Sciences. " Bath- " ing the feet in warm water is highly expedient " for the purpoſes of derivation in thoſe diſeaſes " which ariſe from congeſtions of the humours to

" the

" the head and breaſt, produced by ſpaſms of the " inferior parts, and eſpecially of the hypochon- " dria. Amongſt this kind, beſides lethargic diſ- " eaſes, we may reckon almoſt all diſorders of the " head, ſuch as madneſs, melancholy, cephalæas, " hemicranias, the claves hyſtericus, vertigos, " tooth-achs, pains of the ears, a gutta roſacea; " inflammations and defluxions of ſaline humours " on the eyes, immoderate hæmorrhages from the " noſe, and long watchings. Of this kind are alſo " ſome diſorders which affect the breaſt, ſuch as " convulſive aſthmas, dyſpnoeas ariſing from a " plethora, palpitations of the heart, dry coughs, " and ſpittings of blood. Beſides, baths for the " feet, in conſequence of their ſingular efficacy in " relaxing ſpaſms, are highly beneficial in ſpaſmo- " dic and convulſive diſorders, in pains, cardial- " gias, colics, eſpecially of the hæmorrhoidal kind, " gripes produced by the ſtone, and inflations of " the ſtomach. It is to be obſerved, that bathing " the feet produces more happy effects if before it " is uſed the quantity of blood is leſſened by vene- " ſection in the foot: it ſhould be uſed about bed- " time, and the feet kept warm till the patient " goes to bed, by which means perſpiration all " over the body is increaſed. This bath may either " conſiſt of light pure water alone, or to correct " the qualities of heavy and hard water, a lixivium, " or bran of wheat, or chamomile flowers, may be " added." The water which is uſed for this pur- poſe ſhould never be warmer than new milk, other- wiſe it will do harm. Three minutes is time ſuf- ficient for the feet to continue in it, and when ta- ken out they ſhould be immediately wiped dry with a clean linen cloth. The above operation is

only temporary work, as it doth ſeldom either prevent or cure diſeaſes, and as it leaves the body relaxed in ſome degree, it renders it more liable to catch cold; however, where it will give relief in caſes attended with great pain, &c. it is certainly of good ſervice, and much ſafer than opiates, and the like: but to return to the preventing and curing of diſeaſes, &c. It is well known to people who have gone through a courſe of cold bathing, that the firſt and ſecond times of going into the water have generally proved diſagreeable, the reaſon of which is owing to the pores of the ſkin (which are not obſtructed) being gaping too wide, by which means the cold water cauſes an unpleaſant ſenſation; but afterwards going into the water becomes more agreeable, owing to the pores of the ſkin being contracted into their natural ſize and ſtate. And were people, at their firſt beginning to waſh, to uſe ſuch water as is generally employed for cold bathing, many of them, eſpecially ſuch as are relaxed, would find the ſame diſagreeableneſs at the firſt; which would when continued become more agreeable, for the ſame reaſons given above; but people may begin a courſe of waſhing with water which is not diſagreeably cold to them, and as it fortifies their body by reducing the pores of their ſkin to their natural ſize and ſtate, the practice of waſhing will continue agreeable, although they uſe the water by degrees ſomewhat colder.

The METHOD *of* WASHING.

I Would recommend to tender people, and ſuch as do not care to have their floors wetted, as follows: In the firſt place, let well ſeaſoned boards be

be firmly joined together, in the form of a right-angled parallelogram, or long ſquare, in length three feet eight inches, in breadth two feet ten inches; let it have a ledge upon the ſides and ends two inches high, and let its joints be calked, ſo that it may hold water. Near the centre fix with nails, drove over head, long ſlices of cork, half an inch thick, and not too cloſe together, nor yet ſo open but that they may be eaſy to ſtand on bare-footed; let the pieces of cork ſpread the compaſs of twenty-two inches by twenty, and the longer ſide of the cork extend croſsways, and at right angles over the plank. Provide a clean tin veſſel to contain the water for waſhing; its depth about eight inches, and its diameter ſeven and a half. Provide likewiſe a pretty large coarſe clean and dry towel, to wipe the body with. Let the water which is uſed in waſhing be the pureſt that can be got; and when there is occaſion to decreaſe its cold, let a little be heated in a clean veſſel, which is to be mixed with the reſt of the water, having at hand other pure water, in order to attemperate the water intended for waſhing: but let it be obſerved, that the water which is heated muſt be put in a veſſel which will prevent its being in the leaſt tinged with ſmoke. Three quarts of water will be a ſufficient quantity for the purpoſe of waſhing. The hands being but ſmall parts, and kept conſtantly naked, are liable to great variations with reſpect to heat and cold, and making uſe of them to find the temperature of the water will not be ſo certain as uſing a ſponge ſoaked in the water for uſe, out of which may be preſſed water upon the ſhoulder, thigh, or other maſſy parts of the body, whereby the determinate temperature

of the water may be tolerably acquired at any ſeaſon of the year. But ſuch as would be very nice, and affix certain degrees of temperament to the water, agreeable to the ſeaſons of the year, &c. may make uſe of a good thermometer, which may be eaſily adapted to that purpoſe. As in cold bathing, ſo in waſhing, the body ſhould not be overheated at the time the operation is performed, nor ſhould it be done near a fire, but in a room where the air is pretty ſtill, and not mixed with ſmoke, damp, or any other noxious effluvia; and the room ſhould be moderately cool for the ſeaſon of the year, ſo that there will ſeldom be occaſion to uſe fire in the room at the time of waſhing. I would recommend to tender people, who are ſubject to have their blood, humours, vapours, &c. to fly into their heads when they prepare for waſhing, to ſtrip off their lower garments laſt, and put them on firſt after the proceſs is finiſhed. The water may be taken out of the veſſel upon the parts of the body plentifully with the hands, when their inſides are put into a concave form, and the hands are the beſt adapted for the purpoſe of waſhing and rubbing the ſkin. Every part of the ſurface of the body ſhould be waſhed, and that near as much as is commonly uſed for the hands and face. The operation ought to be carried on with great ſpeed, in a ſtanding poſture, beginning with the hands firſt, then in their turns, the head, neck, ſhoulders, back, loins, breaſt, belly, and ſides, and regularly downwards, not forgetting the arms and ſoles of the feet, which will require the moſt waſhing, and ſhould be done quickly if in a ſitting poſture. The parts joining the loins, will be beſt done in a ſtooping poſture; and waſhing

the

the anus, and parts adjoining, in the poſture of going to ſtool, and in this part of the operation one hand is to ſupply the other with water, that the water in the veſſel may be kept clean. If the hands are not pliable, a ſpunge will anſwer to waſh the tops and ſides of the feet. In order to waſh the ſhoulders, back, and loins, an inſtrument ſhould be provided, ſomewhat like the form of the printed capital L; its longer part two feet ſeven inches, the ſhorter part from end to end ſeven and a half inches in length, with a bruſh fixed upon the extreme end of the ſhorter piece, the back of the bruſh forming an angle with it of about fifty-five degrees; the length of the bruſh three inches and a half, its breadth two and a half, to be made of wood and hair, and equal in ſtrength to a common fleſh bruſh. The whole of the bruſh ſhould be dipped in water, that it may hold a good quantity at a time; then the bruſh to be raiſed quickly over the head, and applied to waſh the ſhoulders, back, and loins, which may be done by holding the longer part of the inſtrument in the hands, one hand having hold of it ſome height above the head, the other keeping hold a convenient diſtance lower, by which means the bruſh may be rubbed briſkly upon the ſkin, upwards and downwards, ſideways, &c. Wiping the back and ſhoulders may be performed by keeping hold of the towel with the hands, a good diſtance apart from each other, and drawing the towel up and down the back and ſhoulders, and then obliquely acroſs them, &c. And thus a perſon, after a little practice, will be able to go through the proceſs with alacrity. As with cold bathing, ſo with waſhing, the operation ſhould

be

be performed when the ſtomach is near empty; after which exerciſe, or a warm bed, will be proper: therefore thoſe whoſe employments are ſedentary, and who cannot afford time for exerciſe, may take ſupper early, and waſh immediately before going to bed; but ſuch as have it in their power to take enough of exerciſe, may waſh an hour before breakfaſt, dinner, or ſupper, or at going to bed; however, the morning is by ſome reckoned the beſt time for cold bathing. I have uſed all the different times above mentioned, for waſhing, and think if any deſerve the preference, it is the morning, and at going to bed; the latter of which ſeems the moſt proper time for children, as ſome may not be able, and others neglect to take enough of exerciſe immediately after.

Of WATER *conſidered in reſpect of* DIET.

MY next purpoſe is to ſay ſomething with reſpect to the neceſſity there is for people to make a proper choice of water for diet, and point out means whereby to enable them to provide better water than is generally uſed, &c. notwithſtanding many very able philoſophers and phyſicians have expatiated largely on the powerful and ſalubrious effects good water has in the animal oeconomy; and on the other hand, have repreſented, with perſpicuity, and the moſt undeniable proofs, the direful, and fatal conſequences produced from the long continued uſe of bad water. I ſay, when theſe things are maturely conſider'd, it is not a little ſurpriſing to obſerve the indifference and inattention which people pay in common, to the choice of water, the predominant cauſe

cauſe of which may be attributed to a defect in the intellects, occaſioned by intemperance, and the ſlow and imperceptible effects good and bad water have in mending or deſtroying the conſtitution. But with the temperate and affable Eaſt Indians, the caſe is juſt the reverſe; they pay the ſtricteſt regard to cleanlineſs, and the purity of their water: the immenſe labour, and expence which they have been at, in forming their regular and extenſive reſervoirs, and the cleanly order in which they are kept, beſpeak the high eſteem they have for good water; but here they do not ſtop: they extend their charity to the thirſty ſtranger, and the weary traveller; having dug large wells at convenient diſtances upon the ſides of the parched roads, merely for their refreſhment; they go ſtill further, and are charitable even to their enemies, in many inſtances, one of which I ſhall mention. An Indian merchant at Bombay, after having been extremely ill treated by the company's ſervants, left, at his deceaſe, effects, the intereſt of which, according to his will is appropriated to defray the expence of ſupplying the Europeans with good water to drink, which water was ordered to be the beſt that could be conveniently procured, and ſerved out to them ready boiled, in the moſt public part of the garriſon, (notwithſtanding fuel is very dear in that part) which practice was in being when I left that place. I hope my reader will excuſe this digreſſion, or any other he may meet with in this work, they being all, in ſome meaſure or other, deſigned for the general good of mankind. Properly ſpeaking, there is no ſuch thing as bad water, it is the foreign or extraneous matter contained in moſt waters, which make it hurtful to the body,

but

but as water is generally diſtinguiſted by its own effects, &c. into good and bad, I ſhall conform henceforward to the ſame terms. It is ſomewhat difficult, to determine as to the purity of the water. The eye is no adequate judge on this occaſion. It will teach us, indeed, not to uſe foul or dirty water, which would carry mud, and a multitude of other things, we never ought or intended to ſwallow into our ſtomachs; but it leaves us in the dark, as to thoſe contents of water, which in however great quantity may be ſuſpended imperceptibly in it, (in this cauſe we are to judge by the effects of the water); for as the various kinds of ſalts, ſpars, minute granules of cryſtal, ſand, &c. are pellucid, make no appearance when ſuſpended in it; nevertheleſs, their ſlow and imperceptible effects, on the human body, are by the accounts of the ableſt writers on this ſubject, generally prejudicial, and deſtructive to health; and altho' there be ſome particular ſprings very good, yet the generality of them are the leaſt fit for diet of any water, except ſuch as betray themſelves by a dirty colour or loathſome taſte. The above hard water is always more or leſs impregnated with particles of earth. Now the granules of ſand, ſpar, &c. obſtruct the glands, the exquiſite fine veſſels, &c. and the fine particles of earth may be ſuppoſed to increaſe the obſtructions, as they can ſcarce fail, in the courſe of circulation, to ſtop the paſſages, which are by the ſharp pointed and indiſſoluble ſubſtances, rendered almoſt cloſe. Thus the natural ſecretions are hindered, and alſo the circulation in the capillaries, &c. which induce numberleſs chronic diſeaſes, &c. for altho' the human body

body is moſt wonderfully framed, and made to endure great changes, yet we find nothing is more common than for obſtructions to form in various parts of the body, the moſt noble parts not excepted. Dr Williams acquaints us, "that the "pineal gland, (which is ſeated in the brain) hath "often been found to contain gravel."

Now as men are endowed with reaſonable ſouls, and forbid to take away or even ſhorten life, certainly they ought to be more circumſpect in regard to ſuch ſubſtances as are taken into the body; and there is little doubt but that the Europeans, as well as the Indians, certainly would, were it not for ſome particular reaſons before mentioned, viz. a deprivation of the reaſoning faculties, occaſioned by intemperance, &c. This deteſtible evil, the invention of ſatan, hath brought upon multitudes ſuch a weakneſs, and high degree of folly, and pride, that they hold ſound reaſoning or ſtudy in the greateſt contempt; and why? 'Tis, becauſe they themſelves are inadequate, and in no condition to enter upon ſuch noble acts. "The man, ſays Seneca, who thinks "himſelf above ſtudying, is in effect beneath every "thing; and neither fit for civil ſociety on earth, "nor immortal happineſs hereafter." But to return from this digreſſion.

Of SNOW WATER.

"BOERHAAVE is laviſh in his encomium on "ſnow water, which he prefers to all others; "but he adviſes it to be collected carefully, from the "tops of high ſandy mountains, at a diſtance from "any towns or houſes, that it may not be tainted "with any ſmoke, or other impurities. He likewiſe "prefers ſuch as has fallen after a long ſharp froſt,

"in

" in calm weather, and takes only the top of it. He " ſuppoſes this ſnow to produce the pureſt water " that art or nature can furniſh us with, that " ſcarcely any ſalt, air, oil, or other mixture will " be found in it; that it really differs from all other " water; that it is the pureſt of all, quite immu- " table, may be kept for years, and is a ſingular " remedy for inflammations of the eyes."* This is agreeable to Dr Rutty's account, who collected the ſnow water which he analyſed in February, after the great froſt in 1739, and followed Boerhaave's precautions as nearly as his ſituation would permit him to do. A gallon of this water left, upon evaporation only, four grains of a light brown ſediment, conſiſting of marine ſalt, abſorbent earth, and a pittance of ſulphur †.

Dr Williams tells us, " that the water pro- " duced from melted ſnow is ſuperior to all other " kinds in regard to purity; all waters, as they are " more pure, are more ſoft in general; the above, " as the pureſt, is the ſofteſt of all. Rain water " comes next to this; but, both by experiments and " analyſis, is found to be inferior to it; after rain " water, thoſe waters are the ſofteſt which are " moſt formed of this, except when altered for " the worſe, by ſtagnation, or other accidents. " Spring water," ſays he, " although the cleareſt " and moſt tempting of all to look at, is the leaſt " pure, and of all others the leaſt fit for common " uſe; and conſequently the other waters we meet " with, which are all compounded of a mixture " of ſpring and rain-water, are the better and " fitter for all the purpoſes of life, as they con- " tain

* Boerhaave's Chem. vol 1. p. 601.

† Synopſ. p. 40. table [EE]

" tain more of the rain water, and leſs of the other. " Such water as ſits lighteſt upon the ſtomach is to " be preferred to that which is heavy there. It " ſhould have no ſenſible quality but that of mere " water on the body." The ingenious Dr Rotheram ſays, " that water is the fitteſt for general " uſe which is the pureſt and moſt free from all " heterogeneous particles, or unmixed with any " foreign ſubſtance, whether of the animal, vegetable, or mineral kind. An abſolute pure and " unmixed elementary water, we can indeed " ſcarcely procure; for whatever bodies it meets " with it will generally carry ſome particles of " them along with it, and more eſpecially if it " comes into contact with any of thoſe ſalts which " are plentifully diſperſed through the animal, " vegetable, and mineral kingdoms; even in paſſing through the air it will attract ſome particles which change its property, and whatever " veſſels we keep it in we generally find a ſenſible " change. We muſt therefore be content with " that which contains the feweſt of the heterogeneous parts, and thoſe of the moſt inoffenſive " kind, i. e. ſuch as give the leaſt hindrance or " diſturbance to its natural operations, more eſpecially ſuch as may be injurious to the animal " body, or work any change in the human conſtitution. This, in ſupplying large towns, is a " conſideration of great importance; for theſe ſubſtances are often ſo ſmall in quantity, that they " operate by ſlow and imperceptible degrees *, " and their effects by this means may eſcape the " niceſt obſervation; yet by long and conſtant perſeverance they may become very prejudicial, if " not deſtructive."

* See Dr Percival on the Waters of Manchester.

The very able phyſician and philoſopher Hoffman ſays *, " that as water is properly reckoned " by philoſophers amongſt the elements, ſo its " extenſive uſe appears through all the works of " nature: for water is that univerſal ſolvent " which divides and tears in pieces the ſolid parts " of every kind, imbibes, and carries them away " with itſelf. From hence we are furniſhed with " a cauſe for the various changes in nature; for " without water no fertility, nutrition, nor in- " creaſe, can take place in the regions of nature. " Without water no animals live, nor circu- " lation of the blood and humours in the veſſels, " no ſecretions nor excretions of what is uſeleſs, " can be effected. If ſolid bodies, or metals, mi- " nerals, or ſtones, are to be diſſolved, the help " of water is neceſſary. We ſee no putrefaction " nor corruption without moiſture; nor can re- " medies operate upon human bodies, nor fluids " act upon ſolids, but by means of water. Our " dry and ſolid food without fluids would be de- " prived of all its uſe and benefit."

The great philoſopher and friend to mankind, the excellent Mr Boyle, found ſuch a variety of different minerals, and ſome of them very miſchievous ones, to lurk imperceptibly in different waters (particularly in ſpring water), that he ſays, " it is only by long experience and obſerva- " tion that we can be ſatisfied of their ſalubrity. " Even poiſons of the moſt pernicious kind have " been known by experience to be contained in " mineral waters, which were yet ſo ſubtile, that " the

* Obſervat. Phyſico. Chemic. lib. 2. obſ. 7.

" the niceſt chemical analyſis could not diſcover " them *." " About two league's from Pader- " born, in Germany, is a treble ſpring, called " Methorn, which has three ſtreams, one of which " holds much orpiment, &c. Some of this water " being carried home, was given to hens after they " had eaten oats, barley, and bread crumbs, and " ſoon after they had drank of it they became " giddy, reeled, and tumbled upon their backs, " with convulſion fits, and died with a great ex- " tenſion of their legs; giving them common " ſalt, after they had drank, they died not ſo ſoon; " giving them vinegar, they died not at all, but " in ſeven or eight days after were troubled with " the pipp." Lowthorp's Abridgement of the Philoſoph. Tranſ. vol. 2. p. 331. In Alſton-moor, Hexhamſhire, and many other places, it is well known that no poultry can live near the waſhings of the lead ore; and this is generally ſuppoſed to be owing to the ſpars, cryſtals, or marcaſites, which are waſhed away from the ore, and either picked up by the fowls in ſubſtance, or taken in by the water impregnated with them.

This water is known to injure, or deſtroy horſes, or other cattle, which are unwarily allowed to drink of it; and though experience has taught the inhabitants to keep their cattle pretty much from it, yet misfortunes ſometimes happen ſufficient to keep theſe effects within obſervation and memory. The inhabitants at the feet of the Pyrenees and Alps, as alſo thoſe in the Black-foreſt, Switzerland, and Triol, are troubled with glandular, tumors

* Vide Hoffman de Venenis.

and ſwellings of the throat, &c. which modern authors attribute to the hardneſs and impurity which the water acquires in its deſcent from the hills. It is likewiſe from the large quantity of ſtony matter, which the hard waters generally contain, that moſt of them leave large incruſtations upon the ſides of veſſels, in which they are boiled, as tea kettles &c. The waters of Gambroon, in Perſia, produced in the fleſh of ſuch people as uſed it, extraordinary long worms, which induced the inhabitants to fetch other water at the diſtance of five leagues. The waters near Couchin, in India, abound with a bad quality, and cauſed ſuch as uſed them to have their legs and ancles ſwelled to an extraordinary thickneſs, which occaſioned the people to fetch other water in boats from Verapoli, at five leagues diſtance; whilſt the Europeans at Napagatam, in India, uſed the water adjoining that place, their hoſpital was crouded with diſeaſed patients; but in a little time after they had changed the water for a better kind, which was procured at twelve miles diſtance, they enjoyed a much better ſtate of health. We find by the authorities of able phyſicians, that, in Europe, many tedious and fatal diſeaſes, are occaſioned by the long continued uſe of bad water, ſuch as malignant putrid fevers, miliary fevers, the epidemical diarrhoea, or looſeneſs, the ſcrophula or king's evil, the palſey, the ſtone and gravel, the ſcurvy, the hyſteric diſeaſes, and many other nervous ones, worms, the diabetes, &c. And, as bad water is known to generate obſtructions, little doubt remains but that it will contribute its ſhare to the production of a number of other chronic diſeaſes. The ſurpriſing difference

betwixt

betwixt the effects of good and bad water, on the human conſtitution, is a thing of extraordinary great importance, and deſerves the moſt ſerious attention; for it is well known, that the internal uſe of pure water will cure obſtinate diſeaſes, which are often occaſioned by the uſe of impure or bad water. The waters of Malvern are an inconteſtible proof of this in ſcrophulous and leprous caſes, in which they have been ſo ſucceſsful as to aſtoniſh their ingenious and worthy patron himſelf, who can aſſign no other reaſon for their wonderful operations, but their extreme purity, which is ſuperior to any hitherto known. Now from the above account of the deſtructive effects of bad water, and the ſalubrious effects of good, one might reaſonably conclude that nothing more need be ſaid to induce even indolent people to refrain from grovelling up ſuch water, as manifeſt itſelf to be of a bad quality, if they had the right uſe of their reaſon; but it ſeems impure waters, which form obſtructions, &c. will prevent the regular ſecretions in the glands, circulation in the infinitely fine veſſels, &c. and probably cauſe a defect in the animal ſpirits, or their paſſages, which may render them leſs capable of co-operating with the ſoul, and in ſome meaſures deprave the reaſoning faculty.

It is through the particular diſpoſition of a people, which have been attentively obſerved for ſome years, and who uſe a particular kind of bad water, which gives me ſome reaſon to ſuſpect the above; but of this I ſhall ſpeak more at large hereafter. There are not wanting drunkards, and others, who are in love with artificial drink, which give water the appellation of rot-gut; and I know not how many other opprobrious names. They pretend too, that when water of a bad quality is made into beer,

ale, &c. it renders it wholeſome; but juſt the contrary is true, eſpecially if the water is impregnated with ſtoney particles, for then they are covered with a glutinous ſubſtance, and are liable to cauſe obſtructions, even in the kidnies, as well as the other finer parts; but drunkards are generally ready to make ſome excuſe, in order to ſcreen their extravagance and brutality. One teſt of the purity of water, is, that it be entirely free from any particular taſte or ſmell, that it be perfectly inſipid, otherwiſe we may ſafely conclude that it is impure; it ought likewiſe to be perfectly limpid, bright, and tranſparent. Indeed, ſeveral good waters, and eſpecially the river ones, will be muddy and opake, as will be obſerved afterwards; but this can ſcarcely be called an imperfection, if they ſubſide, and become clear, upon ſtanding; but whatever water ſhews any particular colour, is certainly impure.

Of RAIN WATER.

DR Rotheram ſays, "rain water is, properly "ſpeaking, diſtilled by nature;" and though, for reaſons, which I ſhall aſſign preſently, it falls a little ſhort of common diſtilled water in purity, yet when properly collected, and well preſerved, it is of excellent uſe, and ſcarcely inferior to any natural water, which we know. Boerhave calls rain water, the Lixivium of the air, and ſays, "that, in paſſing through the atmoſphere, it col-"lects and incorporates with various bodies "which fall in its way, as ſalts, ſpirits, oils, ſoaps, "earths, and metals themſelves, all which may "be raiſed by different exhalations into the air, "and unite with the aqueous particles in different

"pro-

" proportions, according to the ſoil, climate,
" or various ſeaſons in which they are ob-
" ſerved: hence the different degrees of heat,
" and cold, the different winds, meteors, thun-
" der, the ſmoke of furnaces, and culinary
" fires, ſeverally contribute to change the pro-
" perties of rain water. In ſummer time par-
" ticularly, it brings along with it the ſeeds and
" embryos of vegetables, and animalcula, which
" renders it diſagreeable to the taſte, and promote
" its putrefaction." If it be kept in wooden veſſels, it will ſoon ſtink, and become unfit for uſe; and then if it be viewed by a microſcope, it is found to contain an amazing number of various animalculæ, and particularly thoſe which from their form and motion, are called the wheel animals.* Theſe animalculæ are ſuppoſed to be the chief cauſe of the water's putrefaction; and therefore Boerhaave and others recommend the boiling of it, which will inſtantly deſtroy theſe animals, whether they be perfectly formed, or only in embryo. Rain water is likewiſe obſerved to be a little hard, when it firſt falls;† and it hath frequently been obſerved to crudle with ſoap, and turn rather milky with ſugar of lead, when it is newly fallen; but in two or three days it becomes perfectly ſoft. The rain which falls through the ſmoke of large towns, is rendered foul and black, more eſpecially if it be collected, as it generally is, from the roofs of houſes, when it brings with it a great many particles of ſoot, which gives it a very diſagreeable taſte, and colour, and renders it unfit for almoſt any

* Baker's Microſcope Made Eaſy; p. 83, and Employment for the Microſcope, p. 295.

† Rutty's Synops, p. 28.

any domeſtic purpoſes. Notwithſtanding all this, it is known that when rain water is properly treated, it is exceedingly pure and good; and in taſte, colour, and fluidity, is ſcarcely inferior to any other water. "When water of any kind is "kept in wooden veſſels, it contracts a par- "ticular ſmell, taſte, and colour from the wood; "and veſſels, for this purpoſe, being generally "made of oak, they may when new, give the "water ſome degree of aſtringency. There- "fore clean earthen veſſels are the beſt, though "I apprehend leaden ones may be uſed with "tolerable ſafety, if they be kept clear from "vegetable acids, all of which are found to cor- "rode lead, and to produce a very noxious ſalt." Dr Rutty obſerves, that "rain water, upon ſtand- "ing, depoſits a ſediment nearly the ſame, both in "quantity and quality, with that which is ob- "tained by the gentleſt evaporation, which is a "convincing proof of its purity, after ſubſiding; "for, as this ſagacious naturaliſt very juſtly ob- "ſerves, the contents are more looſely adherent, "or leſs intimately diſſolved, in rain water than "divers others." For its ſpecific gravity, after repeated trials, have not been found to differ from that of diſtilled water, more than one hundred thouſandth part of the whole, though diſtilled in large glaſs veſſels, and with a very gentle heat. From ſix different ſpecimens of rain water, Dr Rutty produced from 6 to 12 grains of reſiduum to a gallon for the moſt part of a dark brown colour, with ſome particles of white interſperſed, of a bitter brackiſh, and ſometimes lixivial taſte, and diſagreeable ſmell. From ſeveral experiments he concludes, that this reſiduum is compoſed of calcareous nitre, marine ſalt, ſulphur, and abſorbent

ſorbent earth, each of which ingredients muſt be contained in very ſmall quantities: and when we conſider that the water thus analyſed, was not previouſly depurated by ſubſiding or filtering, we may reſt pretty well ſatisfied, that rain water properly managed, will approach as near to a perfect, unmixed element, as we can reaſonably deſire, and will ſcarcely be exceeded by any which we can procure, excepting perhaps thoſe from ſnow and hail; which as they commonly fall in colder climates, and colder ſeaſons, may be leſs affected with thoſe impurities which are occaſioned by heat, or from very uncommon ſprings; for ſome there are extraordinary pure, which muſt be owing to the nature of the earth, which the water filters through.

Of RIVER WATER.

AS rivers are chiefly compoſed of waters from different ſprings, they might be expected in ſome meaſure to partake of the properties of thoſe ſprings and rivulets which run into them. The different ſoils or beds through which they run may likewiſe communicate ſome part of their contents to the water, and hence we find that the waters of ſome rivers have different properties; thoſe of the Seine at Paris, for inſtance, are purgative, eſpecially to ſtrangers; the ſame is obſerved of the Nile, at Cairo. Add to this the number of fiſhes, and other animals, the leaves, bark, and roots of trees, with a variety of vegetable ſubſtances which are found in moſt rivers; and near large and populous towns the quantities of filth, and heterogeneous ſubſtances which are mixed with them; when we conſider all this, we are naturally led to imagine

imagine that river water would generally be very impure; yet nature generally provides a remedy againſt all theſe inconveniences; and it is a great inſtance of the goodneſs of providence, that thoſe waters which are moſt in quantity, the eaſieſt obtained, and moſt generally uſed, are rendered by the courſe of nature the moſt beneficial, and are beſt adapted to our health and convenience. For river waters do in a wonderful manner very ſoon free themſelves from moſt of their impurities; they are, in this reſpect, ſimilar to rain water, which indeed makes a conſiderable part of their compoſition, that they naturally drop their ſediment, and are thus diſpoſed to a ſpontaneous analyſis, that if the water in a river were poiſoned in one place, able judges make little doubt but that in a very little running in its channel, it might become good and wholeſome. Though we may not fully comprehend all the means by which rivers thus purify themſelves in their courſes, yet the following may deſerve our conſideration: Dr Rotheram ſays, "the motion of the current contributes to "this effect. No water which is kept in motion "will putrefy; and the continued agitation of the "parts, and their colliſions againſt one another, "often diſpoſe them to ſeparate, and thoſe mine-"ral ones, which naturally attract one another, "are by theſe means collected together, and by "their ſpecific gravity depoſited."

Hence the waters in the moſt rapid rivers are ſaid to be comparatively light and pure, inſtances of which are given in thoſe of the Rhine and Rhone, which are very rapid moving rivers, and have their waters lighter and purer than thoſe of many

many others *. The abſorption by the bed or channel of the river, whether this be ſand, marel, gravel, clay, or almoſt any other ſoil, will attract many of the ſalts, and other mineral, animal, and vegetable ſubſtances, and diſunite them from the water. The finer the mud is the ſmaller the particles are into which it is divided, and the more intimately and uniformly it is diſtributed through the water, it will more effectually ſearch every part of it, catch hold of whatever comes in its way, and carry it to the ſides and bottom: and hence the waters of the muddieſt rivers, after they have properly ſubſided in ciſterns, or reſervoirs, are often the pureſt and brighteſt. In the courſe of water through the channels of rivers the ſun and air have a conſiderable effect in rendering it more pure. If water be a little hard, it is well known to become ſofter by being expoſed to the ſun and air: by what mechanical operation this is effected, or how it can be accounted for, may afford matter of ſome diſpute; perhaps the heat may contribute not a little towards it, for we ſee ſome waters which are loaden with contents that will depoſite a great part of them, eſpecially of the earthy ones, upon being moderately warmed; and it is probable upon this account that ſome waters become ſofter, milder, and more agreeable upon boiling, by dropping thoſe earthy, or calcarious parts, which were rather ſuſpended than diſſolved in them †. But ſuch waters as are loaded with fixed ſalts, will generally be found more

* Rutty's Synops, p. 15.

† Percival's exper. and obſerva, p. 27.

more ſtrongly impregnated, after boiling; upon this account thoſe rivers which take the longeſt courſe, are thought to afford the beſt water, as they are more and longer expoſed to the ſun and air, ſo that the water of the Ganges, has by ſome been reputed the beſt in the world; and upon this account it is ſaid, the Eaſtern monarchs have been at the expence of carrying it to a very great diſtance. To this cauſe Proſper Alpinus atributes, in a great meaſure, the ſuperior excellence, and purity, of the river Nile*; which river, taking its riſe under the tropic of Capricorn, and running through the whole breadth of the torrid Zone, empties itſelf into the Mediterranean, in the latitude of about 32 degrees north, during which long, and warm courſe, it precepitates its contents, is attenuated, and cleared of all its impurities. Dr Rotheram of Newcaſtle ſays, "the river Tyne riſes from diffe-"rent ſourſes, ſome of them from about ſixty "miles north-weſt from this town, and others "about fifty to the weſt, and ſouth-weſt, from "this town; and from thence, to its entrance "into the ſea, at Tinemouth, is about ten "miles; but if we meaſure from the windings, "it may be more in both caſes, ſo that its ſeveral "branches ſpread over a very large tract of coun-"try, the greateſt part of which abounds with col-"leries and lead-mines, from the numerous levels "and engines of which, immenſe quantities of water "are conſtantly flowing in, that we ſhould be much "within compaſs, if we aſſerted, that above half the "water which runs by Newcaſtle, comes from the "mines

* Med. Egypt, lib. 1. cap. 10.

" mines; and ſometimes the waters above men-
" tioned will be ſuddenly let off in very large
" quantities, or what the workmen call huſhes,
" and will apparently diſcolour the river for a
" conſiderable ſpace; yet ſo readily and entirely
" does the river clear itſelf from any impurities
" which it might be ſuppoſed to contract from
" hence, that I have never been able to diſcover
" the leaſt particle of any vitriolic, or other ſub-
" ſtances, which are to be found in coal water,
" though I have repeatedly and very carefully ex-
" amined it at different ſeaſons of the year, and
" at different times of the tide." He ſays like-
wiſe, " that the Tyne water in the neighbour-
" hood of Newcaſtle is pure and good, and is
" known to keep exceedingly good and ſweet thro'
" long voyages, as it hath been frequently carried
" to North America." It is needleſs to ſay any thing in praiſe of the Thames water, as it is known to be extraordinary good by the people in moſt maritime parts of the world, notwithſtanding the vaſt quantities of filth which drain into it, and its turbid appearance: however, it muſt be much better for diet when it hath had time to ſubſide. As I have experienced the good and bad effects of pure and impure water, in the courſe of diet, in a pretty high degree, and being convinced that there are great numbers of people who, through a miſtaken notion, prefer ſpring water to that of river, I have dwelt the longer upon river water, in order to ſhew that it is in general exceeding good, after it hath had three or four days time to ſubſide in; and the expence of a few earthen veſſels to contain it cannot be great.

Of STAGNANT WATER.

THE ſtagnant waters in lakes, ponds, and ditches, are generally eſteemed the worſt; and by the experiments of Hoffman and Boerhaave they appear to be ſpecifically the heavieſt: but we muſt be cautious of drawing too general inferences, even from the reports of theſe two great men; for Hoffman tried the ſpecific gravity of the marſh water, taken out of the town ditch at Hall, by an hydrometer, which, he tells us, exceeded the common ones *. And Boerhaave draws his concluſions from the lake of Harlem †. Both theſe waters are very impure; for that at Hall was full of inſects, and contained a great quantity of alcaline ſalt; and Boerhaave tells us, "that all "the dirt and filth from the populous city of Ley-"den, beſides the myriads of pounds of dying "ſtuff, alum, tartar, vitriol, &c. which are mixed "with water and thrown out in whole floods "from the dyers veſſels, are all emptied into "the lake at Harlem;" and the perfection to which ſeveral colours are brought at Leyden, he aſcribes to this particular water, "becauſe," he ſays, "that the dying of thoſe colours has been "in vain attempted in other places, though by the "ſame workmen, and after the ſame manner." It is evident from theſe accounts that both theſe waters have ſomething peculiar in them, and that from their ſpecific gravity no general concluſion can fairly be drawn. Dr Rotheram ſays, "the "water

* Obſervat. Phyſico. Chymic. lib. 2. Obſ. 7.

† Element. Chem. vol. 1. p. 612.

" water in ſome of our lakes in this iſland is, I " apprehend, as pure and good as moſt of what " we ſhall find elſewhere. I pretend not indeed " to have analyſed many of them, nor even to " have tried their ſpecific gravity, but I remem- " ber well to have drank of the waters in Winan- " der-mere, Ulſ-water, and others of our large " lakes in Weſtmoreland and Cumberland, and " have found them very ſoft and good: And I look " upon it to be a ſtrong proof of their ſalubrity, " that fiſhes, of various kinds, are caught in as " high perfection in the two lakes above men- " tioned as any where in the world; for beſides " the numbers of that beautiful and elegant fiſh, " the charr, which are annually taken out of " them, and almoſt peculiar to them, I believe " they may challenge the world to produce finer " trout, perch, or any other fiſh which they may " contain: and the purity of water will be allowed " to be as neceſſary to the health of theſe animals, " as that of the air is to ours." There are many lakes in Cumberland which the Doctor hath not named, particularly three, which are ſituate about three miles from each other, extending in a right line from the ſouth-eaſt to the north-weſt, and are known by the names of Withburn-water, Darwent-water, and Baſinthwaite water. Withburn-water is the leaſt, and in compaſs near one ſquare mile; Darwent is ſituate in that delightful and much admired valley in which Keſwick ſtands. They all receive and emit running waters, and that perhaps, on an average, at about the rate of their whole contents in the ſpace of a month in the ſummer ſeaſon. Their waters appear to be all of one quality, and are exceeding ſoft and ſweet, notwithſtanding

two of them are ſupplied in part with many ſmall rills, which trickle down the ſteep ſides of the adjacent rugged and lofty mountains, which were in ancient times plentifully ſtored with mineral ſubſtances, ſuch as the common lead ore, copper ore; and there are ſtill vaſt quantities of marcaſites, &c. which impregnate the waters that iſſue out of the old mines with poiſonous ſubſtances; and although ſome of the mines are ſo near the Darwent ſide, that their noxious contents cannot be ſuppoſed to ſubſide in their ſhort courſe to the lake; yet the power of the ſun and winds, by rarefying and agitating the lake, ſeem to make room ſufficient to let the poiſonous particles precipitate to the bottom, as there are no dead or ſickly fiſhes found near the influx of the mineral waters, or in any other part of the lake, except ſuch fiſhes as may have eſcaped from the jaws of the voracious pike, or large pearch. The three lakes abound with one and the ſame kind of fiſhes, ſuch as pikes, trouts, pearches, and other ſorts, which are all caught in high perfection, and excellent in their different kinds; but they contain no charr, which is ſaid to be owing to the preſence of the devouring pike. The three lakes ſeem all alike in reſpect of tranſparency, which is ſuch that I have frequently ſeen the bottom of the Darwent in three fathoms of water, and I believe it might be obſerved to a greater depth in a ſtill calm. When long and heavy rains are accompanied with high winds, the mud brought by the rivulets, and that raiſed by the daſhing of the waves againſt the lee ſhores, diſpoſe the lakes to be ſomewhat turbid; but in two or three days after the weather is ſettled, the mud ſubſides, and they renew their former luſtre.

Their

Their bottoms, to a great depth, are in many parts covered with green graſs, of a ſhort kind, inclining to that which is obſerved to grow on watery meadows, and that in all ſeaſons of the year. Fens, moſſes, and ſome ſtagnant waters, ſuch as ditches, are known to ſend forth noiſome ſmells, eſpecially in the ſummer; but I have been acquainted with the above lakes for a number of years, and never found any ſmell ariſing from them in any ſeaſon. They are, in my opinion, ſofter than moſt river waters upon this iſland, and extraordinary good for the purpoſe of diet. There are yet no leſs than ſeven other large and ſmall lakes, none of which are more than twelve miles diſtance from Keſwick, which have not been mentioned, each of which contain excellent fiſh; and by the variety of fiſhes which they produce, and other circumſtances ſimilar to the afore-mentioned lakes, it may be concluded that their waters are all ſalubrious and very fit for all the purpoſes of life.

There are many hundred thouſand people, natives of India, who uſe ſcarce any other than ſtagnant water for their drink, as well as all other purpoſes of life; and where are there a more healthy people upon earth? The artificial lakes or tanks, as they term them, extend from near two miles in circumference, to that of the quarter of one mile, having them made large or little, according to the number of inhabitants which partake of them, &c. Upon the coaſt of India they have the monſoons, or regular periodical winds; they are accompanied with exceſſive heavy rains, and the length of this ſeaſon, is generally about five months; in ſix of the remaining ſeven

months, the atmoſphere is ſerene, and what falls in this ſeaſon is dews only, for there is ſcarce a cloud or a drop of rain to be ſeen for about a fortnight before, and after the rains. The uſe of the reſervoirs then, are for the purpoſe of ſupplying the natives with good water, which are highly neceſſary in the dry ſeaſon, for without ſuch the inhabitants of many large and populace cities, and towns, as well as villages could not ſubſiſt. They are generally dug in hollow places, and after the ground adjacent to the reſervoirs hath been thoroughly ſoaked with rain, a great part of the rain, which falls afterwards, makes its way into the reſervoirs, and if the monſoons are very wet, many of them overflow their banks, ſeveral of them being dug to the depth of five or ſix fathoms, which are very neceſſary, on account of the great quantity which is daily raiſed in vapours, through the effect of the intenſe heat of the ſun, whoſe rays dart almoſt perpendicular, through a ſerene atmoſphere, when he is near the meridian. Seven or eight tenths of the contents of many of the reſervoirs are expended before the returning rains, which leave the remaining water far below the banks, although ſeveral of the ſmall reſevoirs are reduced to this ſtate, and have lofty trees and buſhes growing upon their banks, all which circumſtances greatly contribute to becalm ſuch waters, and in a great meaſure prevent the good effects which the winds produce upon them. I ſay notwithſtanding all theſe diſadvantages accruing to the remaining water, it continues exceeding good, is ſeemingly ſofter than the waters in high latitudes, and is ſweet, bright, and very wholeſome for diet, Heat makes ſtagnant fens, ditches, &c. ſtink, but

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it is not known to have that effect upon the reſervoirs in India, although fiſh and other dead animals expoſed to the open air, are turned into corruption in a very little time. In the courſe of the rains, the particles of earth, which are waſhed into their reſervoirs, diſpoſe them at times to become ſomewhat turbid, however this appearance does not continue long, for the water in a wonderful manner ſoon frees itſelf of the heterogeneous particles which ſeem to be chiefly owing to the cauſes before mentioned; viz, its rarefaction and agitation. The Indians have likewiſe large earthen veſſels unglazed, which will ſtand a boiling heat, and ſuch water as is turbid will pretty readily deſpoſit its foreign matter in them, perhaps ſomewhat more readily than in glazed veſſels: and being an extraordinary temperate and cleanly people, they are not at a loſs how to account for the ſalubrious effects of pure water on the human body. It is therefore a cuſtom among them to follow Boerhaave's precaution, and boil the water which they uſe for drink, &c. The reſervoirs are moſt of them compleated after the labour of digging is finiſhed. They are in many parts overgrown on their bottoms with a ſhort kind of green graſs. Many of them are dug very uniform, and have the whole of their ſides regularly and beautifully ſtaired with hewn ſtones, which are of a hard nature, and ſeem as though they might vie with marble itſelf, in point of duration; theſe latter ſort of reſervoirs are more expenſive than the former, and I have not obſerved any material difference in their waters; but theſe which have their ſides fortified with ſtairs may be leſs liable to have

their

their lee ſides rendered turbid by the claſhing of the waters, occaſioned by high winds. Now the above waters are really ſtagnant ones for at leaſt half the year, and yet there ſeems no doubt but that there are very ſalubrious. I could raiſe ſeveral other arguments to corroborate what hath been advanced, in favour of the above natural and artificial lakes of ſtagnant water, but hope enough hath already been ſaid to convince people thus far, viz. That moſt ſpring waters, river waters, rain water, pump waters, &c. may be rendered much more pure and wholeſome for the purpoſe of diet, &c. when they have been collected into reſervoirs, ciſterns, troughs of compact ſtone, large earthen veſſels, &c. and expoſed to the ſun and winds for four, eight, twelve, ſixteen, or more days as may be found neceſſary, in order that the waters may have time to free themſelves from their noxious and hurtful contents, by the aſſiſtance of the ſun, winds, &c. as people cannot be too careful in making a proper choice of wholeſome water.

Particular cautions reſpecting WATER.

WHOLESOME water for the purpoſe of diet being a thing of great importance, and no leſs than highly neceſſary to the enjoyment of a proper ſtate of health; I ſhall recommend ſome particular methods and advantages which may be taken to procure that moſt valuable fluid. I hope what I have already ſaid reſpecting proper water for diet, and what I ſhall yet further ſay on that head, will ſufficiently ſhew, how people in almoſt any ſituation, may at a pretty reaſonable rate

ſupply

ſupply themſelves with it. Let me in the firſt place recommend it to ſuch people as have grounds and water adjacent to towns, villages, &c. not to hinder their fellow creatures from uſing ſuch waters as are good, on paying reaſonable damages. There are a variety of hurtful ſubſtances contained in the ground, which are ſoluble whenever they come in contact with water, and which are liable to be mixed amongſt and carried off with it. I ſhall here name ſeveral of them, and mention the effects which ſome of them produce on the human body.

Arſenick is frequently contained in marcaſite, which is very plentiful in many parts of the world, and its being ſoluble with water, and rendering it poiſonous, hath been already mentioned in the inſtance of the ſpring called Methorn in Germany.

Vitriol of Copper, or Roman Vitriol is of a ſapphire blue, when in large maſſes: this ſalt is ſoluble in water, and found to be mixed with ſeveral waters in minute particles; when taken into the body a few grains of it become a moſt virulent emetic, and may therefore be deemed a poiſon.

Vitriol of Iron in large maſſes is of a green colour. There are abundance of ſprings in many parts of Europe which contain iron, and this ſalt, in exceeding ſmall particles; thoſe ſprings go by the various denominations of chalybeat ſprings, mineral ſprings, iron waters, &c. They are generally endowed with medicinal properties, but vary greatly in this reſpect, which is ſaid to be owing to the different kinds of ſalt they are impregnated with. There are many in Germany, and France, impregnated with a fixed alcaline one, which are excellent for the attenuating, tough, and viſcid humours; and for removing obſtructions of the viſcera. They

are alſo given in jaundices, in palſies, and in nephritic caſes with ſucceſs. Theſe waters are uſed externally with ſucceſs in tumours and hard ſwellings, and in paralytic numbneſs. And Heiſter informs us, "that medicinal waters drank in the "ſummer-time pretty largely, are the beſt means, "as preſervatives, and for curing diſorders of the "ears, and they often perform more than any "other remedies whatever." However, the medicinal virtue of mineral waters is no reaſon why they ſhould be wholeſome, when uſed conſtantly in the way of diet; nay, they are often juſt the reverſe, and capable of deſtroying the beſt conſtitutions, provided they contain active ſubſtances, ſufficient to deſerve the name of mineral waters. Having in the courſe of my recearches after medicine met with a mineral ſpring, which proved a pretty powerful attenuate, and a ſtrong diuretic, and finding that about four families uſed it for the purpoſe of diet, I acquainted them it could not be good for that purpoſe. Yes replyed they, it is very good, it is mineral water; but inquiring ſtill further, and repreſenting how pernicious it muſt be to child-bearing women, &c. one of them burſt into tears, and related a very tragical ſtory, beginning with her own caſe firſt, which was to the following purport, viz. Before ſhe came to inhabit at that place, ſhe had had two healthy children, and one ſoon after ſhe had ſettled there, that in the courſe of about ſix ſucceeding years, ſhe brought nothing to perfection, nor even life, altho' ſhe was then in her prime, but had had three miſcarriages in that time; and was about the time of the laſt reduced, for almoſt a year, to ſuch a weak ſtate, that where ſhe fell, there ſhe

was

was obliged to lay, until one of the family, or a neighbour aſſiſted her. A very loud palpitation of the heart attended this uncommon weakneſs, and in the courſe of it, ſhe was exceeding quick of hearing. After I had uſed this water in the way of medicine, for a few days, I found the ſame effect from it, in regard to hearing, and was ſurprized to hear my watch tick croſs a room, fifteen feet wide. Now this part of the ſtory ſeems in ſome meaſure to ſtrengthen Heiſter's account of mineral waters. But to return, when I converſed with the woman, I found ſhe had gained a little ſtrength, which induced me to ſignify to her, that ſhe had changed the water for diet; ſhe ſaid no, but preſently recollected, that the Doctor ordered her chicken and chicken broth, and a little wine, which broth was made of another kind of water, for ſhe ſaid they never boiled the pot with the mineral water, becauſe it gave the meat a bad colour, and after ſhe uſed this diet ſhe ſaid her ſtrength began to return. She afterwards refrained the uſe of the mineral water, and brought a fine healthy child, as ſoon as could be reaſonably expected. She likewiſe acquainted me with the caſe of two other women, her neighbours, which uſed the mineral ſpring, and who, according to to their ages, might be ſuppoſed to be in their prime of life. When the firſt came to the place, ſhe had one child, but continued there only two years, in which time ſhe enjoyed a bad ſtate of health, and had two miſcarriages, but no living child; afterwards removing a mile and a half from the place, ſhe had had ſince four fine children, is pregnant with the fifth, hath had no more miſcarriages, and now enjoys a good ſtate of

health. The third woman brought with her a young child, who hath continued there for many years, but hath had no children ſince. I could relate ſtill more miſchief which hath been occaſioned by the uſe of this water, and ſhew that it is not women alone that hath ſuffered by it, but I think it is needleſs; for certainly water which proves an active and powerful medicine, and is capable of producing the above tragical effects, cannot fail to hurt ſuch as uſe it commonly. And phyſicians generally caution their patients neither to uſe it too long at a time, nor yet too freely. This is a kind of water which, when uſed imprudently, will ſometimes bring on an obſtinate diabetes, with other diſeaſes. The above were robuſt people, being labourers, and employed in huſbandry, and that in a champaign country, abounding with a very ſalubrious air.

The firſt mentioned woman, was attended by three different people verſed in medicine, two of which were reſident in the neighbourhood, and all three reckoned ſkilful in their profeſſion, and none of them ever ſuſpected any harm from the mineral water. Theſe circumſtances conſidered, there is reaſon to believe, that numbers of people in many parts of the world, are miſerably deceived by this kind of water, and alſo by many other ſprings, and ſome running waters, which ſhew no ſigns of iron; for many of them contain an active fixed alcaline ſalt, ſimilar to that found in iron water: and I am the more perſuaded to this opinion, by reaſon I have heard ſeveral people, belonging to different parts, inſiſt, that as mineral water was a good medicine, it muſt be wholeſome for diet. The particles of iron which the above ſpring contains

tains are very ſubtile, and preſently leave the water on being expoſed to the open air, or on heating the water; but on evaporating the water with a boiling heat, I always found the dry ſediment to contain a quantity of acrid, lixivious ſalt. This is the ſubſtance, which, by the account of able writers, proves a powerful attenuant, and ſeems to produce the miſchiefs before mentioned.

But this ſalt is not peculiar to iron water alone, as has juſt been hinted, but is found to be contained in many other ſprings and running waters. It is a true, fixed, alcaline ſalt, much like the natrum of the ancients, or ſoap earth, which ſalt has properties ſimilar to thoſe of the common fixed alcalies; they are very powerful when taken by way of medicine; in many caſes one grain is a ſufficient doſe, and an ingenious author acquaints us, that one grain of the above fixed alcaline ſalt, found in waters, is ſufficient to deſtroy many conſtitutions. It is a common method uſed by many in regard to judging of the ſalubrioufneſs of water, viz. that all waters, as they are the more pure, they are the more ſoft; and that ſuch as boil garden ſtuff the quickeſt, and mix the moſt readily and perfectly with ſoap, are to be preferred before ſuch as are hard, and have the contrary effect; yet, notwithſtanding all this, the waters which contain the above fixed ſalt, and but little of any other extraneous matter, ought to be excepted; for the above ſalt having the properties of the fixed alcaline ſalt which is put into the compoſition of ſoap, it cauſes it to be apparently ſofter than the other water in the common purpoſes of life, and is the more deceitful and dangerous on the above

account; for ſuch water as contains the fixed alcaline ſalt, in a moderate degree, and no other foreign ſubſtance that can counteract its natural effects, will have the following properties, viz. it will boil peas and other grain ſoft, and in leſs time than rain or river water; it will boil greens, ſuch as brocoli, &c. tender, and of a good colour; it will make a ſtrong and good-coloured infuſion of green tea, but will be attended with this inconvenience, that it will extract moſt of the ſtrength of the tea upon the firſt drawing; and it boils meat red and ſoft. There is a great probability that vaſt numbers are deceived, and ſuffer by ſuch water. The moſt important inquiry is what influence it has upon the health and conſtitution, or what effects or changes the daily and indiſcriminate uſe of theſe ſalts will produce in the animal fluids. The learned Boerhaave has given us a full and conciſe account of the medicinal effects of the alcaline ſalts. I ſhall give it as nearly as I am able in the ſenſe and meaning of an author of undoubted knowledge and authority *. "The firſt effects "which," he ſays, "the alcaline ſalts have upon "the human body are, they deſtroy the acids, "which are few, except in the primæ viæ, and of "the mild vegetable kind. 2. If they meet with an "acid in the human body they effervesce, excite "bubbles of air, flatulencies, and eructations; "they turn into a neutral ſalt, which (being "harmleſs, penetrating, aperient, diaphoretic, "diuretic, and anticeptic) produces new effects, "ariſing from this newly formed ſalt, and not ſo "properly aſcribed to the alcalies, though ſub-

"ſequent

* Chem. vol. 2. p. 58.

" ſequent upon their uſe 3. By the action of this " effervescence they ſtimulate the nerves, put the " animal ſpirits in motion, and change the former " motion of the nerves and ſpirits: hence they " often cure hypochondriacal and hyſterical ſpaſms, " and the diſorders depending upon them, as we " learn from the famous anti-emetic of Riverius; " whilſt the alcali drank in the act of effervescence, " with lemon juice, removes the cholera, and " the moſt obſtinate vomitings, incurable by any " other method. 4. They attenuate whatever is " connected with the acid: therefore when pru- " dently given they produce a fine effect upon co- " agula of milk, and happily reſolve other tena- " cious ſubſtances. 5. They attenuate whatever " is glutinous, oily, or fat, and commodiouſly " mix it with water; from hence they are deter- " ſive; and hence ſpots of greaſe are cleared away " by the lixivium of theſe ſalts, as is well known " to fullers, waſhers, and dyers: therefore by " moderate uſe they clear the chylopoietic labora- " tory from its glutinous foulneſs. 6. They re- " ſolve the coagulum of the bile, lympth, blood, " and ſerum, being admitted into the veſſels, and " there agitated by the vis vitæ. 7. By their a- " crid ſtimulus they put in motion what is inert: " hence they promote the urine, ſweat, and ſa- " liva, and move the belly. 8. Therefore where- " ever there is an inert, tough, mucous pituity, " a conſequent acidity of the vegetable aliment in " the primæ viæ, the ſubſtance or effects of an " auſtere acid, manifeſted in coagula, an abound- " ing colluvies of watry ſerum, tenacious pin- " guious concretions, and the diſorders often ari-

" ſing from theſe, the dropſy, jaundice, leucoph-
" leg-matia, gout, rheumatiſm, and ſcurvy; theſe
" ſalts are of very great ſervice, if they be admi-
" niſtered prudently, well diluted in ſmall dozes,
" and at proper times. That ſpecies of gout which
" ariſes from too much acidity, can ſcarce be
" more happily cured than by the ſparing and
" long-continued uſe of alcaline ſalt: but yet it
" ought not raſhly to be recommended as an uni-
" verſal remedy againſt the gout, becauſe it is
" prejudicial to ſuch gouty perſons as are of a
" bilious conſtitution, and whoſe humours already
" ſpontaneouſly tend towards a putrid alcali.
" 9. Their uſe is pernicious in all caſes where the
" native ſalts begin to degenerate into the acrid
" alcaleſcent putrid kind, and where the natural
" oils of our body incline towards an acrid, foetid,
" putrid, rancid, volatile diſpoſition, manifeſted
" by their offenſive exhalations, and the high co-
" lour of the urine."

They are more eſpecially deſtructive when the bile appears to be in this ſtate, and when the humours are too much diſſolved, fluid and tender, and tending to putreſcency; hence in the plague they are immediate poiſon; and in inflammations, ſuppurations, gangrenes, mortifications, continued putrid fevers, and diſorders depending upon too great a velocity of the blood, their internal uſe muſt be entirely prohibited. Dr Lewis gives a correſpondent account of the operations of alcalies, and very juſtly anſwers an objection which ariſes from ſome late experiments, in which they are found to reſiſt putrefaction in the fluids and ſolids of dead animals, by ſhewing, " that their action, upon living animals,
" muſt be very different, as they apparently in-

" creaſe

"creaſe the colliquation, with which all putrid "diſeaſes are accompanied*." Dr Huxham likewiſe gives us ſome inſtances of the fatal effects of theſe ſalts, upon thoſe, who have for a long time together taken the ſoap leés or the alcalious ſaponaceous hotch-potch of Mrs Stephens; and ſays, it evidently appears, "that the blood, by "theſe means, is diſſolved, and becomes putreſcent, "and that the urine becomes alcalious†." Dr Buchan ſays, "that a diet conſiſting too much of "alcaline ſubſtances will ſoon render the humours "putrid. And that the exceſſive uſe of alcaline "ſalts will occaſion the malignant putrid or "ſpotted fever‡." Which is by ſome called the peſtilential fever of Europe. The effects of alcaline ſalts, as repreſented by the above eminent authors, brought into my remembrance, that the unfortunate woman who was reduced to ſo weak a ſtate, by the uſe of the tempting mineral ſpring, had about three months ago, loſt the child ſhe bore, preſently after ſhe came to the neighbourhood of the ſpring, and alſo the infant ſhe bore after refraining the uſe of the above water, within a week of each other. It is ſaid they died of a putrid fever; and having heard a year ago, that this family had again reſumed the uſe of the ſpring, I imagined ſomething more might be learned on taking a ſhort journey to the place, in regard to malignant putrid fevers, and here I was not deceived; I found the woman a ſecond

* Mater. Med. p. 481.

† Eſſay on Fevers, p. 48.

‡ Family Phyſician, p. 63, and p. 233.

time reduced to a feeble ſtate, on account of uſing the above water. She acquainted me of the ſymptoms which attended her two children, which were near alike, and by comparing them with the ſymptoms which Dr Buchan and others give of the malignant putrid fever, it appears, the fever which carried them off was the ſame, only their ſymptoms appears to have been more violent than ordinary. The eldeſt was carried off in nine days, the younger in ſeven. This diſeaſe extended about a mile and a half round, attacked about twenty more, who were in general under puberty; but as they had uſed water of another quality, they were not ſo terribly affected, and only two of them died, which was on the twentieth day after being ſeized with it.

Living in dirty low damp houſes, which are ſituate in a confined and bad air, wearing dirty clothes, &c. is ſometimes the occaſion of this dreadful diſeaſe. But the mother of theſe two firſt mentioned children, is a cleanly perſon, who with her family breathed a ſalutary air; and it ſeems ſhe would never have been brought to uſe the water a ſecond time, had it not been through the inſtigation of ſeveral people, who made a ſcoff of any thing that was ſaid againſt it. They judging of medicinal waters, as hath before been obſerved.

The eminent Dr Rotheram who hath wrote very judiciouſly againſt the internal uſe of a particular water, which he obſerves contains about nineteen grains of alcaline ſalt to a gallon of water, ſays, "It is of no avail to ſay, as hath been ſaid publicly and repeatedly of Cox Lodge water, that in "ſome caſes it may be beneficial; this is ſurely "acknowledging its efficacy as an alcali; and if it

"has

" has efficacy to do good by deſtroying the acids
" or attenuating the viſcid humours, ſurely it
" muſt have efficacy to do harm, where theſe acids
" are too few, or theſe humours already too thin.
" Further, when uſed by perſons in perfect health,
" which health moſt certainly depends in ſome
" meaſure upon the due proportion of acids, and
" the proper texture or conſiſtence of the animal
" fluids, it muſt deſtroy the equilibrium, and there-
" fore muſt inevitably bring on diſorders. Nor
" will it be allowed, that the quantity of alcalia in
" Cox Lodge water is too ſmall to produce effects
" of this kind; for it will appear, by conſtant uſe,
" it muſt and will operate powerfully as an at-
" tenuant. The waters of Aix-la-chapelle do not
" appear to contain a larger proportion of alcali
" than thoſe of Cox Lodge, and yet they are found
" by long taking to render the urine alcaline as do
" thoſe of Carolſbadt in Bohemia*. If there be
" a ſufficient quantity of alcali to paſs through the
" courſe of the circulation to be ſecreted by the
" kidnies, and produce this effect upon the urine,
" who ſhall ſay that it will not in ſome degree
" attenuate? that it will not diſſolve the blood,
" diſpoſe it to putrefaction, and bring on or
" heighten thoſe putrid fevers, dyſenteries, alcaleſ-
" cent ſcurvies, and other diſorders." And in another place the Dr ſays, " that water abound-
" ing with alcaline ſalts can never be proper for
" common uſe; but he allows that a very little of
" them may not hurt the water." Allum is ſometimes found in water, and being a powerful aſtringent, ſuch waters as abound with it, muſt be very unfit for conſtant uſe.

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* Philoſoph. Tranſ. vol. 51. No. 28.

How to procure good WATER *for* DIET.

LET us in the firſt place ſuppoſe a large town ſo ſituate, that water is conveyed to it from an eminence by the help of pipes; now if ſuch water runs turbid into the pipes, or conveys with it any hurtful ſubſtances, ſuch water would be rendered much more pure and wholeſome, if it had ſufficient time to ſubſide, either where it is received into the pipes, or where convenience could be made for that purpoſe, at ſome diſtance from the pipes, in one or more places. Such ſupplies of water are generally conveyed in artificial channels, which are ſometimes raiſed in particular places, above the low adjacent grounds, over which it glides; and I apprehend, that there are few of theſe rivulets where the adjacent ground will not admit of the water being formed into ſpacious baſons, by building cloſe and ſtrong dams at a good diſtance from the ſide of the channel, either on one ſide or both, as the ſituation of the ground ſhall require, in order to contain a large collection of it. But if no ſuch convenience offer, a large baſon might be dug, to contain as much water as the rivulet would fill, in the ſpace of nine, ten, or more days, as ſhould be adjudged neceſſary, and ſo many days time would the water have to drop its impurities, and in ſome caſes eſpecially in warm and dry ſeaſons, a little more time. And although the expence of buying ground, daming or digging, might in ſome caſes be great, there would be in proportion great numbers to ſuſtain it, who, I am convinced, would be amply repayed for ſuch an undertaking. For certainly there

there muſt be a vaſt difference betwixt water which will form obſtructions in the human body, and ſuch water as will remove them; or water which will bring on diſeaſes, and water that will prevent them, and carry diſeaſes off. It appears to me, that the above methods would be practicable on the new river water at London, and many other waters which ſupply a great many populous places in Europe. 2. Let us now ſuppoſe a large town which is at preſent uſing turbid and impure water for diet, and on account of the want of room, &c. have not the convenience to mend the bad qualities of their water by the aſſiſtance of the ſun and winds. In this caſe, methods may be purſued to render this water more wholeſome. Boiling ſuch water has a good effect. It is obſervable, that before water is agitated to a boiling heat it is expanded, and takes up a good deal more ſpace, conſequently foreign ſubſtances contained in it will have room to ſubſide.

Further, the embryos of animalcula will inevitably be deſtroyed by this proceſs, and they are ſuppoſed to be the chief cauſe of the waters putrefaction, when kept in wooden veſſels. I knew a man, who, when he uſed unboiled water in the ſummer and autumn, ſeldom failed to void the worms called aſcarides; but when he uſed ſuch water only as had been boiled, that complaint ceaſed. Now, for the above reaſon, I would recommend Boerhaave's precaution. The Indians boil all waters which are deſigned for internal purpoſes. Great care ſhould be taken in the courſe of boiling the water, that neither ſmoke, nor any other ſubſtance be communicated to it, in the courſe of boiling. Veſſels of caſt iron may

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anſwer very well for the purpoſe, provided they have been ſome time in uſe, and be kept dry and clean, ſo that they are entirely free from ruſt. I apprehend that glazed boilers may be made of earth to ſtand the fire, when ſurrounded with brick and morter, (or even without this precaution) and fixed in the manner of common boilers. If ſo, they would be cleaner and better than iron itſelf. After water hath been boiled, it will keep ſweet for a long time; and in proportion to the quantity that is uſed in a family, earthen veſſels may be provided, which will contain as much boiled water, as will ſupply the family about eight or ten days; by this means none of the boiled water need be uſed for diet, until it hath had ſeveral days time to drop any impurities it may contain after boiling. Such earthen veſſels ſhould have a cock fixed at ſome diſtance above the bottom, in order to draw the pure water off, without agitating it. We are told, that the waters of the river Nile in Egypt, muſt ſtand for ſome days before it becomes perfectly bright, and that it was a cuſtom at Cairo to rub the ſides of the veſſels in which it was contained, with a few bruiſed almonds, by which means, it ſubſided the ſooner.

3. Let us for inſtance ſuppoſe villages, country houſes, &c. ſupplied with impure water, either from ſprings, rivulets, fen grounds, or otherwiſe; ſuch waters might be rendered much purer by being allowed a ſufficient time to precipitate their impurities in ſmall reſervoirs or ciſterns, ſituate in cleanly places, and where they would be well expoſed to the ſun and winds. Two reſervoirs or ciſterns would anſwer in moſt caſes much better then one. The time taken to expend one reſervoir or ciſtern might

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be allowed for the water of the other to ſettle; and the water might be conveyed into them various ways, according to the ſituation of places, and as circumſtances ſhould require. An artificial channel or pipes, the aſſiſtance of wind or water engines, pumps, horſe carts, &c. or even buckets, would be a cheap method of procuring natural drink.

When kings and conquerors tilled the ground, they certainly knew wherein true happineſs conſiſted, much better than the indolent and affluent do in theſe modern times of ſhameful degeneracy. An advantage may often be taken in conſtructing reſervoirs and ciſterns, in order that their bottoms and ſides may be cleanſed, by letting all the water out of them through a ſhort pipe fixed at the bottom of their deepeſt ſide; and this will always be practicable where the ground is unlevel, or lies in a declivity; for ſuppoſe the reſervoir is dug in the earth, a level may be cut to the loweſt ſide of it; and in order to keep the water clean in the reſervoir, or ciſtern, it may be drawn of for uſe through ſmall pipes, fixed at a diſtance above the large cleanſing pipe, which ſmall pipes ought to extend ſix or more inches into the reſervoir or ciſtern, in order to receive the water in its greateſt purity; but where the ground lays ſo convenient that a ſuitable reſervoir may be formed, by making a ſubſtantial dam, a level at the loweſt ſide of it will ſcarcely be wanted, and the neceſſary pipes may be laid at the time of building the dam. 4. Many ſingle families, and even large villages, are at times reduced to a ſcarcity of water, and are often obliged to go a great diſtance for it; notwithſtanding numbers of theſe places might be plentifully

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ſupplied with good water, at a moderate expence. Water will make its way over grounds which have but a very ſmall declivity. Upon the ſides or at the bottom of unlevel grounds, either reſervoirs might be dug, or formed by dams; and in order to receive the rain water, very ſmall channels might be cut in the ground above the main channel, to extend from the edge of the reſervoir right up the riſing ground, and to have ſmaller channels branching out of it. The branches would ſend the rain water into the main channel, which would pour it into the reſervoir, and when near full, the water ought to be diverted another way, to the intent that the water in the reſervoir may have time to ſubſide. Afterwards a ſmall channel might be cut round the brink of the high ſide of the reſervoir, in order to prevent turbid water from draining into it. In the above caſe two reſervoirs would often be better than one, as whilſt the one was expending the other might be repleniſhing. The above method of cutting branches, &c. admits of exceptions, but the intelligent huſbandman, may, according to the ſituation of places, eaſily find out ſuitable methods from the above. Beaſts, as well as the human ſpecies, might be limited to a particular field, and often ſupplied with good water after the above method; as they will not drink bad water when they can get good, and as bad water is often the cauſe of their death, there is great reaſon to believe that they would thrive much better with good water, and that it would be greatly to the intereſt, as well as credit of the owners, to ſupply them with it. Baſons of water, intended for the uſe of beaſts, might be railed round, and the fence indented into the water at the drink-

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ing place (the bottom of which might be laid with ſtone) in order to prevent their wallowing in it, and rendering ſuch water turbid; but in ſeveral ſituations more cleanly methods than this might be adapted, which may be eaſily gathered from what hath been ſaid reſpecting reſervoirs and ciſterns. Perſons deſirous of having that precious ſubſtance, milk, in its higheſt perfection, ſhould feed their cows with ſuch ſubſtance as have retained their juices incorrupt. Many are pleaſed to ſee their hay turn brown out of the ſtack, which is an error of the firſt magnitude. This ſort ſends forth a putrid and diſagreeable ſmell, and this ſenſe of ſmelling was doubtleſs given us, by the all wiſe creator, in order that we might be able to judge of the purity or impurity of things, thereby "to refuſe the evil, and chooſe "the good." On the other hand, hay which turns green out of the ſtack, has a pleaſant ſmell: proof ſufficient of its having retained its juices pure, and that it is wholeſome. Such cows as are nouriſhed with this ſort, and other ſound food in the winter, will be in good condition in the ſpring: whereas cows which have been ſtuffed with putrid hay, putrid grains, &c. frequently exhibit the morbid ſtate of their humours in the ſpring, by the breaking out of cutaneous eruptions, a feeble ſtate of their body, &c. If we make tea of the leaves of baum, ſage, or mint, which in the courſe of drying become brown, the taſte of ſuch tea, will be diſagreeable and even nauſeous; whereas, when there remains after dying, the natural green colour, they retain their pleaſant ſmell and taſte, and make an agreeable infuſion. Now it appears, that people ought to be more circumſpect with re-

gard to the managing graſs intended for hay. How different muſt that milk be, which is produced from cows that are naturally fed with wholeſome vegetables, and wholeſome water, from that produced from cows whoſe humours are rendered morbid by putrid vegetables and putrid water? The firſt milk will keep twenty four hours ſweet in a ſeaſon when the other will not keep nine. The firſt milk is extraordinary good nouriſhment, and will, when perſiſted in, cure various obſtinate diſeaſes. The other is capable of producing diſeaſes, and can never be fit to enter the human body. Thus, ſuch animals, as are the moſt ſerviceable to mankind, are often half poiſoned, and kept in miſery; whilſt their milk tends to deceive people: but to return to water. 5. Rain water which falls upon houſes in country places, after having been allowed a few days to precipitate its extraneous contents, becomes very bright, and will, as well as the other, anſwer the neceſſary purpoſe of diet. But in towns, where it often falls through ſmoke, it is apt to contract a diſagreeable taſte from the ſmoke. In country places, good quantities of it may often be procured, after the rain hath waſhed the ſut and other impurities off the houſes. Water, when not in too large a body, being an extraordinary tracticable fluid, may be eaſily diverted from the roof of a houſe by the application of ſpouts and ſmall pipes into ciſterns, ſituate in clean places, at convenient diſtances from ſuch houſes as firſt receive it. This method of obtaining good water, would be attended with another good convenience, viz. it would prevent a great quantity of water from being beat into the walls through the force of winds, the effect of which,

which, ſoak and decay the walls apace, beſides rendering the rooms damp and unwholeſome. The ſame effects likewiſe tend to ſhorten the duration of furniture, &c. Filtering water through different kinds of ſtone, beds of ſand, &c. are methods uſed by ſome, for preparing good water for diet. I have tried to render water pure by the above methods, and when I had uſed every means I could think of, with the greateſt aſſiduity, all my endeavours proved abortive. I have lately examined water, which was filtered through a large ſtone of a cloſe girt, the concave area of this ſtone was not leſs than five ſuperficial feet, the thickneſs of its ſides about two inches and a half, and when filled with pelucid hard water, the girt of the ſtone was ſo cloſe, and fine, that it only filtered about five eighths of an Engliſh pint per hour. The ſediment of this filtered water, was, in quantity, about five grains by weight to an Engliſh pint; although the water was evaporated from it with a boiling heat, which according to Dr Rutty's account, will only leave about half the ſediment procurable by a gentle evaporation, which cauſes the water to be no warmer than what the hand can eaſily endure.

The quality of the ſediment was a mixture of gravel, a little ſalt, and a little earth; and the gravel ſeemed to weigh more than either of the other two ſubſtances: its particles of gravel were ſuch, that by putting a little of the ſediment betwixt the teeth, it may be heard to crackle. By the accounts of experienced anatomiſts, &c. reſpecting thoſe infinitely fine veſſels, which compoſe the glandular parts of the human frame, theſe hard and pointed particles muſt be liable

to cauſe obſtructions in ſeveral parts of the human body; and although ſuch obſtructions are brought about imperceptibly, that is no reaſon why they ſhould not in ſome meaſure weaken both body and mind; therefore it appears, the filtering of water does not anſwer the intended purpoſe near ſo well, as reſervoirs and ciſterns do. In order to form tight reſervoirs and ciſterns in open ſpungy grounds, an artificial bottom may ſometimes be neceſſary. There is one particular ſucceſsful method uſed with the bottoms of large fiſh-ponds which is as follows, viz. If the bottom is falſe, they lay the foundation with quick-lime, which ſlacking will make as hard as ſtone*. Notwithſtanding lime water, when newly made, or kept cloſe ſtopped in bottles, is an active medicine; yet when expoſed to the air for a few days, the ſtrength and taſte of the lime entirely vaniſhes: and in order to cauſe the turbid waters in new dug reſervoirs to ſubſide the ſooner, quick lime is often thrown into it, which has the deſired effect. The mortar uſed in Italy for making water courſes, and ciſterns, and alſo, in finiſhing, or plaſtering, of fronts, is of two ſorts; the one is compoſed of lime and hogs greaſe, mixed with juice of figs; and the other is of the ſame ingredients, but has liquid pitch added to the reſt, and is firſt wet or ſlaked with wine, and then pounded or beaten, with hogs-greaſe and juice of figs†.

Good clay may eaſily be procured in many countries, and when it is properly worked, may, in moſt caſes, anſwer to ſupply the defect of falſe grounds,

* See fiſh pond in Croker's Dict. of Arts and Sciences.

† See Mortar in Croker's Dict. of Arts and Sciences.

grounds, or ſuch as make waſte of the water: one tire of common bricks, flat tiles, or flat ſtones laid regularly and cloſe upon the clay bottoms of ciſterns, &c. might perhaps be of ſervice.

Method of Inveſtigating the properties of Water.

THE celebrated Mr Boyle, and after him many learned and judicious authors upon this ſubject, have laid down a multiplicity of rules for judging of the properties and contents of water: a few of which I have mentioned already, and ſhall now lay down ſuch other methods and precautions, taken from able authors, as, I think, will be neceſſary, in order to enable people to chooſe good water for themſelves. After obſerving what appearances are made at the ſpring head, and in the channel through which the waters flow, as whether any ochreous or chalky ſediment be left upon the ſtones, whether the water has any ſlime or ſcum at the top, a ſufficient quantity of it may be taken into clean and well corked glaſs bottles, and be ſubjected to as many of the following trials as are judged neceſſary.

1. The moſt common, and indeed the eaſieſt, method of judging whether water contains any conſiderable mixture of ſaline matter, is to put a little of it into a clean thin glaſs; and having ready prepared a ſaturated ſolution of the ſaccharum ſaturni or ſugar of lead, in clear water, let two or three drops fall into the glaſs, and if it make no cloud, milkineſs, nor precipitation we may be pretty ſure that the water contains no quantity of mineral ſalt that need be much regarded; for one grain of ſalt of almoſt any kind, put into a pint of

pure diſtilled water, will diſcover a cloud or a wheyiſhneſs, upon dropping in a little of this ſolution, and upon ſtanding a few hours, will form a thin cruſt upon the ſides of the glaſs. If there be any conſiderable quantity of acid alcaline, or neutral ſalt, three drops of this ſolution will inſtantly turn a wine glaſs full quite turbid and milky, and in proportion to the quantity of the contents, theſe effects will often vary, ſo as to afford an opportunity of forming ſome probable conjecture about them. This trial is eaſy, and at the ſame time determines ſo quickly the comparative purity of moſt waters, that it is recommended by almoſt every good author.

2. Another method frequently practiſed, is by dropping into it a little ſolution of pure ſilver in good aqua fortis. This trial is ſaid by Dr Rutty, to be more touchy than the former one, where it meets with marine ſalt, though Mr Boyle ſeems to be of a contrary opinion, for he thinks, the ſolution of the ſugar of lead is affected with leſs degrees of impurity than the ſolution of ſilver. But the ſilver, ſays Dr Rotheram, has undoubtedly this advantage, that it will in ſome meaſure, by the colour of the precipitated ſediment, ſhew the nature of the contents, as this ſediment is always of a brown or black colour in the ſulphureous waters, and generally white and grumous in theſe which contain any quantity of marine ſalt. The opacity of the water in both of theſe experiments is generally proportionable to the quantity of earth it contains; for theſe metallic ſolutions attract the ſaline parts, which are the band of union between the earth and water. And from all the experiments I have heard related, theſe two methods are ſo very ſimilar, that, excepting in the caſe of

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ſulphur, the effects will generally be the ſame; and as the ſolution of ſugar of lead is more eaſily prepared, and we may in moſt caſes depend upon it, the other is not always needful. I would not here be underſtood to aſſert, that all water which ſhews itſelf turbid with one or both of theſe ſolutions, is unfit for common uſe, ſeveral waters may contain a ſufficient quantity of mineral to occaſion theſe appearances, (for very little will do it) and yet be pleaſant and wholeſome; but whenever theſe effects are obſerved, we may be ſure of ſome mixture, and ſubject the water to further experiments. But if water, which is deſigned for common uſe, doth ſtand theſe teſts; and betray no foulneſs by its taſte, ſmell, or colour, we may be ſatisfied with it.

3. Another trial commonly made, is by dropping in a little lixivium of water, (uſually, though improperly called the oil of tartar,) or a ſolution of any of the alcaline ſalts: if there be any earth ſuſpended by an acid this will precipitate it; and by this means will generally ſhew a ſmall degree of hardneſs.

4. The uſual way of determining the hardneſs or ſoftneſs of water is by ſcraping any certain quantity of ſoap into it, and obſerving how it diſſolves: caſtile ſoap is perhaps the beſt for this purpoſe. If water be perfectly ſoft the ſoap will diſſolve quickly, uniformly, and without curdling, and upon ſhaking the glaſs briſkly, will raiſe a ſtrong froth at the top; but the ſmalleſt degree of hardneſs will ſhew itſelf, either by the ſoap not diſſolving ſo readily, or by leſs froth remaining after it is agitated; and the different degrees of hardneſs may hereby be very well determined. This may be tried with about a

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grain of ſoap to an ounce of water. Soft water is good for diet, tho' that which is ſoft through the effects of alcaline ſalt ought to be excepted.

5. Another examination of water is, by mixing the mineral or vegetable acids, and obſerving whether it ferments or turns opake. If theſe effects be obſerved, it may be concluded, that the water contains either an alcaline ſalt, or an abſorbent or calcareous earth, the latter of which will more frequently appear to be the caſe. Dr Rutty ſays, "that the ſpirit of ſalt is found to be a more "ſenſible teſt of either than oil of vitriol."

6. Obſerve whether they change the colour of ſyrup of violets, the blue tincture of the cyanus, or almoſt any other blue flower. An alcaline ſalt inſtantly turns all theſe tinctures to a full and beautiful green; the abſorbent earths and calcareous nitre likewiſe give them a greeniſh caſt, but not ſo ſtrong nor ſo quickly; and the colour will vary in its brightneſs, or intenſity, according to the nature and proportion of theſe ingredients. The mineral acids ſuddenly turn the ſyrup of violets to a bright red; and if the ſyrup be freſh and good it turns red with Alum. Dr Rutty obſerves that, "when old ſyrup is uſed, it will turn green."

7. Obſerve what tincture the water extracts from galls, jeſuits bark, or any other vegetable aſtringent. If it ſtrikes red or purple, it is a ſure mark of iron; if blue, it ſhews vitriol.

8. By dropping in a little ſolution of quickſilver in aqua-fortis or ſpirit of nitre, or a ſolution of ſublimate in water, if any of theſe meet with an alcaline ſalt, they drop an orange coloured yellow or white precipitate, as the alcali approaches to the lixivial or urinous kind. Mr Boyle has

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mentioned a great many more trials of this kind, as may be ſeen in his memoirs on mineral waters. But by making the above experiments upon the waters, eſpecially when they are tried in concert, and compared with one another, we may form a tolerable gueſs of the purity or impurity of water; and indeed, if water will ſtand both the firſt and fourth teſts, it can ſcarcely be deemed unfit for common uſe.

9. Iron waters are beſt examined at the ſpring head, the particles being exceeding ſmall, are often found to be volatile, and to leave the waters in the courſe of running. Three grains of powdered galls will turn two ounces of iron water into a reddiſh colour, in leſs than a minute; ſuch waters generally diſcover themſelves by keeping the bottom of the channel near the ſpring head, of a ruſty iron colour, and there is often a ſcum floating upon ſuch waters, where they iſſue out of the ground, approaching to the colour of poliſhed iron.

10. Another teſt of the purity of water, inſiſted on both by ancients and moderns, is its lightneſs. The pureſt waters generally are the lighteſt, yet the ſpecific gravity is not always a certain rule to judge by, for the contents of impure waters differ much in ſpecific gravity amongſt themſelves. Several of the vegetable ſubſtances will ſcarcely increaſe the weight of the water in which they are infuſed, the mineral ones generally do, but not in the ſame proportion; for ſome of the ſalts differ from one another in ſpecific gravity more than one third, and therefore the ſame quantity of each cannot make an equal alteration in the ſpeci-

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ſic gravity of water. An ounce of good alcaline ſalt, and the ſame quantity of putrified nitre, diſſolved in equal quantities of diſtilled water, will produce two waters of different ſpecific gravities, though the quantity of the contents be the ſame in each. Mineral ſubſtances do indeed add conſiderably to the weight of thoſe waters which are highly impregnated with them, but, in general, the difference of ſpecific gravity in the waters in common uſe is not ſo much as many people imagine. For inſtance, a hard water from a pump, which weighed more by eight grains to the gallon than Dr Heberden ever found the pump waters in London, weighed only about $\frac{1}{100}$ part more than rain water. The above circumſtance induces me to conclude, that the weighing of water is but an indifferent method of determining the goodneſs of it, eſpecially if it is not weighed with an extraordinary good beam, and the greateſt accuracy.

The Diſpoſition, Diſeaſes, Actions, &c. of People depend upon their uſing a particular bad Sort of Water for Diet.

THE uſe of a certain water has a bad effect on the mental faculties. I ſhall not heſitate to deſcribe its qualities and ſituation, and likewiſe the diſpoſition, actions, &c. of thoſe who uſe it.

The ſituation of the above water is at the junction of the earth and ſea; but as it would be unbecoming, &c. to inſert the geographical point of ſituation, I ſhall wave it, and only obſerve that it is in a pretty high latitude. At high-water mark are large and irregular hills of ſand, rolled on ſhore by the ſea, and raiſed higher by the force of winds;

winds; ſome of the hills exceed thirty feet in perpendicular height, they extend about one hundred or more yards in-land; amongſt thoſe hills are hollow places, in theſe parts holes are dug about four feet ſquare, and four and a half deep, through about three feet of ſand, more or leſs, and about one foot and a half more into a pretty ſolid clay: when the rains deſcend, they preſently make their way through the ſand hill into theſe holes, and carry with them plenty of ſand, and not a little earth, together with ſome marine ſalt, and in the warm ſeaſon, a great quantity of ſmall red worms are mixed with it. This water will, upon evaporation, with a boiling heat, leave from twenty to thirty grains of dry ſediment to an Engliſh quart, and half the weight of this ſediment, ſeems to conſiſt of ſmall panules of chryſtalline ſand. Here then are plugs of various ſizes, and a multitude of different forms too well adapted to plug up the wonderful fine ſtrainers in the human body,* and earth is not wanting to increaſe their miſchievous effects. The quantity of marine ſalts, in this water, varies pretty much; a ſtrong gale of wind from the ſea carries off ſalt water from the tops of the ſurges, drops ſome of it upon the hills, which makes its way into theſe repoſitories, and increaſes the ſaltneſs of the water. The ale which the aforementioned people uſe is made of a water ſimilar to the above: It goes off ſlowly by urine, heats the body much, cauſes relaxation, and other bad effects depending thereon. This place is ſituate upon the edge of a champain country, and the goodneſs of the air is ſuch, that it may perhaps

* If you view a million grains of ſand through a microſcope you'll ſcarcely find two of the ſame ſize and ſhape.

perhaps vie with any maritime coaſt in Europe, there being ſeldom any fogs or other hurtful exhalations in the air, and the land winds are two to one more common than thoſe off the ſea; yet notwithſtanding all this, the people are afflicted with the ſcurvy, the gravel, the dropſey, with worms to a high degree; the palſey is common amongſt them, and ſome of the younger ſort are deficient in hearing. The common courſe of nature is very often obſerved in many, and hyſteric people the moſt ſo of any. The ſmall-pox, at times, proves very fatal in the above places, as well as inoculation. Sometimes a large tumour will riſe at ſome diſtance from the inciſion, and diſcharge a great quantity of matter, loſs of ſight, and death alſo, have lately been attributed to the effects of inoculation. The people who partake of this water are, in general, leſs active than in other parts; their complexions are generally wan, and when ſtrangers ſettle, they have a florid complexion. The uſe of this water makes a much greater change in their colour than what is generally affected by the ſea air, and their neighbours who uſe better water, and live a very ſmall diſtance from the ſea, have much more lively complexions than they, and are leſs inclined to indolence and vice.

There are ſome particular perſons who uſe the above water, who ſeem to have pretty good morals; however, the generality of them are quite the reverſe, and exhibit a meanneſs of ſoul which is really ſhocking; intemperance, pride, avarice, and ambition, ſeem to be their leading vices. Theſe deteſtable evils prompt many to act, as tho' they had not the fear of God before their eyes. A

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ſpirit of contradiction reigns in the place to an amazing height. Envy and premeditated malice are the cauſes of many private injuries; ſlanderers, back-biters, and tale-bearers are very buſy, and this is the employment of the men, as well as the women. The place is called by the neighbouring people, a black-guard place; who is poor, and yet it would be difficult to find its equal for pride. The moſt avaricious and indolent do, in general, exhibit the greateſt degree of it. Amongſt other baſe and contemptible vices, the ſpirit of tyranny reigns in the place, which often cauſes miſchievous effects. The generality of children in the above place are perhaps ſcarcely to be equalled in regard to perverſeneſs and ſtubbornneſs of temper. If a man acts his part in ſupport of the moſt neceſſary laws, the meaneſt ſpirited, and moſt vile, becomes his avowed enemies, and by ſecret and wicked means conſpire to ruin him. When a hypocrite in office winks at law-breakers, he is careſſed and accounted an honeſt man. If a man diſplays a genius ſuperior to the reſt, he is levelled againſt with all the ſpleen and malice imaginable. However, this circumſtance hath been obſerved in other places, and mentioned by authors, who call ſuch as are ambitious, and cannot bear a genius ſuperior to their own, by the name of fools; and if this be the name they merit, it ſeems, there are plenty of fools to partake of the above water. I could relate many other mean and deſpicable actions common to the above people, but their ſubject is highly diſagreeable. High latitudes within the temperate zone are generally healthy, eſpecially in ſuch ſituations as are well adapted for good air; but this does by no means concide

with the above diſeaſes, and as the neighbours of the above people are more healthy, more humane, and better diſpoſed, phyſicians frequently attribute the uſe of bad water to the cauſe of the above diſeaſes; further, as the diſpoſition of the people is ſo very prepoſterous, contrary to reaſon, &c. and as ſuch water ſeems, above all others, the moſt capable of forming obſtructions, villicating the tender fibres, cauſing great heat and relaxation upon being made into ale, &c. and through the above conſequences, preventing the natural ſecretions, excretions, &c. in the human body, it is no wonder, if the animal ſpirits are rendered in ſome degree incapable of co-operating naturally with the ſoul, and producing an apparent defect in the intellectual faculties; and though the defect was no greater than to render the people incapable of making timely and judicious reflections reſpecting their own conduct, &c. miſerable conſequences will enſue. The illuſtrious and graceful idea of doing to others as they would be done by, is loſt in darkneſs, and that this is the caſe with the aforementioned people, is notorious to every judicious obſerver of their actions: a majority of them are ſo far from obſerving this momentous precept, that in a great variety of caſes, they run a direct oppoſite courſe. This recital may, at firſt, be ridiculed by the intemperate, unreflecting, &c. yet, if it proves of ſervice to mankind, I ſhall gain my end.

The harmony of the ſpheres, a ſort of muſic much talked of by many of the philoſophers, and ſuppoſed to be produced by the ſweetly tuned motions of the ſtars and planets, is a thing we are ignorant about, not ſo much as knowing whether

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we hear ſuch a ſound or no. For if this ſound came to us, it was at a time when we were incapable of being ſenſibly impreſſed with it, as we cannot ſo much as remember the painful day of our birth; and if it came, it hath continued ever ſince without intermiſſion, and without any ſenſible variation; therefore we know it not. Neither can ſuch, as live in intemperance, know themſelves properly; no, no, they are not yet arrived at full maturity, and are deficient in regard to ſtrength of body and mind, and greatly be pitied, (notwithſtanding many of them pretend to be the moſt knowing and greateſt of men). Here we are only in a ſtate of trial. This earth is no abiding place. Alas! a great part of the leading inhabitants of the earth are now in open rebellion aginſt the divine laws of their beneficent maker. O intemperance! and O lucifer! what have you done? "Adam had "in himſelf the entire and original dominion over "all thoſe things, which afterward became the "ſubject of particular property, when his poſterity "found it neceſſary to make and allow ſeveral "ſhares and allotments to diſtinct families, ſo as "they were not to encroach or break in upon one "another. The law of nature did not preſcribe "the way and method of partition, but left that "to occupancy or compact. So the heads of "families, upon their ſettlement, in any coun-"try, had a twofold obligation upon them. The "firſt was to preſerve the intereſt of the whole "body to which they ſtill were bound, and were "to ſhew upon ſuch occaſions as required it. The "next was to take particular care of thoſe ſhares "which belonged to themſelves, ſo as to improve

" them for their ſervice, and to protect them from " the invaſion of others. This diviſion of proper- " ty was not made by any antecedent law, yet " being once made, and ſo uſeful to mankind, the " violation of it, by taking that which is another's " right, is a manifeſt violation of the law of na- " ture."—Bp. Stillingfleet's works, vol. 3. p. 614. Nevertheleſs, the time is now come, when many deluded wretches are bent upon voting away, not only the chiefeſt property of their neighbours, but even that of their own children, and all this, for they know not what. If ſuch perſiſt in their iniquity they will not only inevitably ruin themſelves and poſterity, but they will likewiſe betray their lawful prince and native country. The firſt act, reſpecting ſelf and poſterity, muſt be a heinous crime, and a flagrant violation of the law of nature; and to injure a good prince or country is abominable. Such as are through oppreſſion, &c. reduced to a diſtreſſed and ſtarving condition had better truſt to their beneficent maker for relief, than violate his moſt ſacred laws, and ſtrengthen the hands of their unreflecting and relentleſs oppreſſors, the greateſt part of which are the moſt notorious, the moſt dangerous, and the moſt ſhameful hypocrites perhaps upon earth; who through the pitiable effects of intemperance are become deaf to the lamentable cries of their ſtarving fellow creatures. I have the diſmal proſpect of a tyrant before me, altho' once a choſen lawgiver, no higher than a Baronet, whoſe weakneſs is ſuch, that he keeps twenty prancing coach horſes, beſides an uncommon number of others of different ſorts, which are all plentifully fed, three

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fourths of which are, upon a judicious computation, uſeleſs, except they are kept for the purpoſe of grinding the face of the poor, and preventing population; in theſe inſtances, ſuch unnatural and ſupercilous conduct has its effect. It would be eaſy to prove that on the waſte, which every uſeleſs horſe occaſions throughout the land, and every three uſeleſs dogs, one of the human ſpecies might be ſupported. It it notorious to every one who is capable of ſound reaſoning, that a law made and continued for a long duration of years, to export corn when at a high price, with a large bounty given with it, is the moſt ruinous to a trading people of any thing that ever was invented. The Mogul's ſubjects, (being clear headed and humane) are greatly ſurpriſed to find that there is ſuch a law in being, and look upon it with contempt; this, together with allowing the exportation of horſes, encourages farmers to give exorbitant rents for farms. Rearing horſes for exportation, &c. large quantities of fruitful grounds are left unploughed; and a good part of the corn, peas, beans, &c. which the ploughed land produces is appropriated to the ſole uſe of theſe devouring animals. The new milk of cows is of late laviſhed away upon theſe young animals by farmers, &c. and that as much at a time as would make a good dinner for at leaſt four ſuch people as have been reduced to diſtreſs through the dearneſs of proviſions. How hardly ſhall they that have riches enter into the kingdom of Heaven, ſaith our bleſſed Saviour? O how hardly indeed! O the dreadful effects of intemperance! O the heinous ſin of ingratitude! Are not the labourers the chief ſupport of the rich in every ſtate? Should not the rich then

ſupport the labourers in their turn? The ravenous beaſts of the deſert are far from behaving ſo ungenerouſly to their own tribes. Thoſe who abet theſe prepoſterous evils, or keep uſeleſs animals to devour the fruits of the earth, are real enemies to population, and mankind in general. A multitude of marriages amongſt the healthieſt and moſt uſeful ſet of people muſt be prevented, and the main ſpring, viz. trade vaſtly retarded, to the no ſmall hinderance of the revenue. The tranſportation of thieves and other criminals to America is known to be a great puniſhment. How comes it to paſs then, that multitudes of laborious and induſtrious parents, with their dear helpleſs babes, are obliged to quit their once beloved country, and tranſport themſelves thither for meer want? What grievous afflictions muſt ſuch parents have ſtruggled under, before they could reſolve on ſuch a perilous enterprize? and how aggravating and piercing muſt the above wretched ſcene appear to every one, who is capable of feeling for the miſeries of his fellow creatures? Be it obſerved, that ſuch as are not very ſenſibly affected on hearing of the diſtreſs of their fellow creatures are by no means properly qualified for law-givers.

Seventy, it is ſaid, of theſe emigrants have periſhed in one ſhip in their voyage to America. Such intemperate, unreflecting, deluded people, muſt have been the means of that fatal cataſtrophe: notwithſtanding it hath been a cuſtom at the ſeptennial meetings to diſplay the moſt ſhameful and unmanly vices, yet, ſuch as may in future follow theſe wicked and ignominious ſteps, will at the laſt find, that their having been a means of

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ſtarving their fellow creatures, (or otherwiſe highly diſtreſſing the ſtate) is little leſs criminal than cutting their throats and putting out of miſery, at once, ſuch poor creatures as have through their miſconduct been brought to a lingering death. Inſtead of making the above meetings the horrid ſcene of brutality and corruption, &c. they ought, above all other worldly tranſactions, to be conducted with the greateſt circumſpection and ſolemnity, ſeeing that on them, the ſafety and proſperity of both church and ſtate depend. I have beſtowed the appellation of tyrant upon a lawgiver who at preſent repreſents a venal borough; and to convince my reader, that he merits the name, I have to add, that he hath uſed other abominable means to diſtreſs the labouring poor, &c. beſides beſtowing an uncommon quantity of the fruits of the earth on uſeleſs animals. This man hath upwards of ſixty families which rent houſes under him, which houſes, tho' in a country place, are let at exorbitant rents, even higher in proportion to the room they contain, than the houſes in a majority of the cities in Europe. I am not charging him with tyranny, on account of the ſhameful waſte he is making, nor yet on account of the extraordinary high rents of his houſes. It is becauſe he hath, contrary to the dictates of reaſon and humanity, oppreſſed his tenants ſo intolerably, that few of them are able to bear it, and in rigorous ſeaſons they are not able to fly. Some of them have had the courage to make humble remonſtrances againſt this unprecedent piece of tyranny, but to no avail; and the poor ſufferers have been looking out for other habitations

bitations which may ſuit their callings; but alas, work is now difficult to procure. Next door to me live and indigent couple who are no longer able to labour, their ages together are about one hundred and forty years; and they have been allowed (by the pariſh they belong) only one ſhilling per week: they are even without friend to aſſiſt them, and as yet continue to live, tho' in great miſery. The pariſh they belong to hath a work-houſe, but they will rather ſtarve than undergo the ſeverities of ſuch an inhoſpitable place. That this is the caſe of thouſands, is without a doubt. Work-houſes in general are a terror to the diſtreſſed, and the very idea of being ſent to a work-houſe will frequently make them tremble and change countenances. The allowance of ſixpence a head per week, to ſuch as can make no endeavours for a livelihood, is generally accepted, as the hardſhips inflicted on the miſerable in ſuch houſes are ſhocking to human nature. What will become of this miſerable old couple who have laboured hard, and been of good ſervice to their country from their youth until they are enfeebled by old age? The ſhilling per week will ſcarce keep them alive, and recent precedents hath deterred them from entering into a work-houſe. They cannot ſell themſelves to America, being paſt labour. Impoſtors have been the cauſe of the prohibition of begging about the country, and ſuppoſe they were able to totter from houſe to houſe for relief, that would ſubject them to the puniſhment of a priſon. But alas! there is ſtill another unſurmountable obſtacle lays in the way of begging, and that is the imminent danger of ſtarving upon the road. Trades people, and

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the induſtrious, who uſed to delight moſt in diſtributing to the neceſſity of others, are now no longer able to practiſe that ſublime virtue. On the contrary, there are an innumerable multitude of thoſe moſt uſeful people reduced to a deplorable condition, and vaſt numbers ſtruggling hard to keep their heads above water, on account of the long continuance of the dearneſs of proviſions. As long as farmers ſee themſelves ſupported by the aforementioned laws, &c. nothing but an increaſe of diſtreſs and wretchedneſs need be expected. The effects of thoſe dreadful and ignominious vices, bribery and corruption, which are founded on intemperance, have thrown a moſt fruitful and beautiful country into alarming and miſerable convulſions. Intemperance, we find, is capable of turning men into monſters of ingratitude. The cries of the induſtrious poor hath been ſtopped many years ago. A Roman could ſupport himſelf and family on the produce of one acre of ground. This country contains at leaſt ſix acres to every inhabitant, yet the abettors of oppreſſion tell us, that the bad ſeaſons for years paſt is the ſole reaſon of the dearneſs of proviſions. Thoſe who are debaſed by intemperance, generally diſtinguiſh themſelves by a ſelfiſh meanneſs, and narrowneſs of ſoul. If people would become temperate they would then have a natural feeling and inclination to aſſiſt each other; by which means the produce of the land might be ſo managed as to be well able to ſupport more than twice its preſent number of inhabitants.

The number of inhabitants of this trading country, hath ever been eſteemed its chiefeſt riches, and trade and manufactures its chiefeſt ſupport. Intem-

temperance ought to be baniſhed, in order that a noble and generous ſpirit may take place of a ſelfiſh and unnatural one, to the end this gloomy and diſpirited country may again ſhine forth with redoubled luſtre; and no earthly thing ſeems ſo able to ſubdue that unnatural monſter intemperance, as the judicious uſe of pure water. It is to be hoped, that for the ſake of proſperity, civil ſociety, &c. people will make a fair trial of it. The other day, a venerable old man, aged eighty two, who had ſtill a ruddy complexion, but extraordinary hollow cheeks, and but very little fleſh on his bones, made free to enter my dwelling: his abject appearance, earneſt ſupplication, and thankfulneſs for charity, was ſuch as might perhaps have cauſed even an European nabob to have felt for him: he was clothed in rags, which were by no means fit to keep out the piercing cold of the then tempeſtuous weather: his limbs were paralytic, otherwiſe the the cold made him tremble; his voice was hollow. I followed him at a diſtance to obſerve his ſpeed, which ſeemed to be at the rate of one mile and a quarter per hour: his ſucceſs ſeemed like that of others in his diſmal ſituation. His pariſh have no work-houſe, and his allowance from it is not quite ſix-pence per week, being only ſix ſhillings in thirteen weeks. He hath been a labourer, and aſſiſted his country for about ſixty years; and muſt he be ſtarved to death at laſt? Is this twenty-four ſhillings per year the reward of his meritorious ſervice? or is it not rather contributing to keep him longer in miſery? O what a ſtate is this poor man, with thouſands more, reduced to. How long ſhall ſuch as preach up charity, (for mean and ſelfiſh views) highly contribute to diſ-

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ſtreſs the induſtrious poor. Have you not told us again and again, that without a ſincere repentance, the wages of ſin is death eternal. Look to your own and the people's preſent and eternal welfare then, that you may be able to make your calling and election ſure. "Humble yourſelves, therefore, "under the mighty hand of God, that he may "exalt you in due time. Be ſober, be vigilant, "becauſe your adverſary, the devil, as a roaring "lion, walketh about ſeeking whom he may de-"vour. Feed the flock of God which is among "you, taking the overſight thereof, not by con-"ſtraint but willingly, not for filthy lucre's ſake "but of a ready mind. Neither as being lords "over God's heritage, but being examples to the "flock: and when the chief ſhepherd ſhall appear "ye ſhall receive a crown of glory which fadeth "not away." It is greatly to be lamented, that the real cauſe of the wretchedneſs of the poor ſhould ſo often be miſreprefented. The unthinking will frequently tell us, that drunkenneſs, idleneſs, &c. are the cauſe of their poverty. It is true ſuch vices are too often the cauſe, nevertheleſs there is reaſon to believe, that three fourths of the people now in diſtreſs have been brought to it by the unreflecting conſtituents or voters. When parents have laboured, and made a hard ſtruggle for years, in order, to ſtop the cries of their hungry children, &c. it is no wonder if the deſtructive paſſion of grief, together with violent labour, and want of proper nouriſhment, hath been fatal to many, and debilitated thouſands of parents, and diſabled them from continuing their employments. When this is the caſe, then they are generally charged

charged with being idle; which charge contributes highly to increaſe the miſery of ſuch dejected ſouls. There is nothing more common than to hear ſuch as are ſtraitened, wiſh earneſtly that they may never have another child; the law then which obliges people to pay for having the corn exported from them, when at a high price, is againſt nature. The diſtreſſed are now feeding upon the brawn of wheat mixed with water, bullocks livers, ſuch potatoes as they can procure, whether good or bad, &c. It is ſaid that in ſome places, in order to keep in life, people have been obliged to take and eat blood, which they have drawn from their cows at different times. There was a loud cry made againſt the Spaniards, when they murdered many millions of the Americans in cold blood; a country whereon they had not the leaſt right to ſet foot in a hoſtile manner: however a ready death is often preferred to that of a ſtarving and lingering one, tho' the inhumane barbarities committed by the Spaniards in America were ſhocking to human nature. The people in any country in Europe, who have been ſo far miſled by intemperance, and the wiles of the devil, as to ſee their induſtrious poor, and chief ſupporters, ſtarve for want of bread, have ſunk to a much baſer degree of heinous ingratitude than can be charged to the Spaniards in the inhuman and mercileſs cruelties they at firſt committed in America. The intemperate followers, flatterers, and ſupporters of ſuch as have unnaturally and undeſervedly come into power, by the aſſiſtance of bribes, deceitful promiſes, &c. may perhaps ridicule (as is their cuſtom) this work, or any other, which may thwart their purpoſes: wherefore it is

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recommended to them to partake of the aforementioned friendly and healing medicine, which is capable of ſtrengthening their mental faculties, and enabling them to judge and act according to the dictates of conſcience and ſound reaſon. It wonderfully exhilerates the ſpirits, ſtrengthens the feeble knees, &c. and cannot poſſibly be all ingroſſed by wicked men; and may be of ſingular ſervice in ſupporting the ſpirits of the diſtreſſed. It will enable ſuch as are in adverſity to bear up againſt it with a becoming patience, and reſignation to the divine will. And what is ſtill more precious, the continued uſe of it will contribute highly to ſtrengthen man's faith in the true chriſtian belief. It is diſagreeable to point out and expoſe people who have been the occaſion of the before-mentioned woful miſeries of this unhappy country. I cannot willingly get over it, as all is now at ſtake, and more eſpecially, as they ſtill perſiſt in their ignominious and lawleſs iniquities, notwithſtanding the many able remonſtrances againſt them. It is a great majority of the three claſſes then, or conſtiuents, at the ſeptennial and other occaſional meetings, who are the mortal and worſt of human enemies to this once free country. They are the men: it is they who are drawing down a heavy puniſhment upon the people, and an eternal one upon themſelves. I ſay eternal, except they repent not; for, what can be more criminal, than to be acceſſary to the death of your fellow-creatures? It is your ſelfiſh, brutal, and deteſtable conduct, which hath occaſioned the long continuance of the high price of proviſions, and the many miſerable calamties conſequent thereon. What a pitiful choice did you make about ſix years ago. Are not more than one third of you

brought into diſtreſs by it? And have not the greateſt part of your relations and neighbours ſuffered moſt ſeverely ſince that time, through the high price of proviſions? This is a real fact, and a great part of you are guilty of high crimes againſt the ſtate; and although you have not received temporal puniſhment as criminals, you have been the means of forcing the hungry and needy to ſteal, &c. many of which we may ſuppoſe have had the penalty of the law inflicted on them for ſo doing. It is a hard thing to undergo the ſeverities of hunger, cold, and nakedneſs. There are ſtill abundance of upright and charitable gentlemen in the land, who, had they been choſen, could not have winked at the cries of the diſtreſſed; but you have ſhamefully deceived and betrayed yourſelves and the public, to whom you, as well as your ill choice, are ſtill accountable, tho' not able to make them full compenſation. How many of you have been promiſed places in the cuſtom-houſe, to which perhaps not one in thirty have ſucceeded. The places in that branch of the revenue, which generally, tho' improperly, come to your ſhare, are from twenty, to thirty pounds per year, and there are very few employments more diſagreable. The diſagreeableneſs of the employ, the ſmallneſs of the wages, in proportion to the high price of proviſion, which your venality hath procured, with the diſadvantages attending the living in ſea ports, render moſt places in the cuſtoms under forty-five pounds per annum, ſcarce worth the accepting. Mean time, there is an expreſs law, and that for very ſubſtantial reaſons, which renders land-men incapable of holding a great part of theſe places. How many of you have been promiſed places in the exciſe,

ciſe, to which perhaps not one in twenty of you have attained? But baſe bribery and corruption have put the neceſſities of life out of the reach of even the induſtrious in this branch, if they have families to ſupport, for which reaſon, they now petition for more wages. Behold then what ſorrow and miſery you have brought upon the inhabitants of a moſt fruitful country! If fifty pounds per annum is inſufficient to ſupport an induſtrious family, how dreadful is the caſe of thoſe who cannot earn more than one quarter of the money, and how much more dreadful ſtill is the condition of ſuch as cannot get work. It is not uncommon to hear freemen declare they will vote for him that will give the moſt money, and, by the beſt accounts, many of them have inſiſted on and received the accurſed bribe. Nay, 'tis well known, that theſe worſt of human enemies have agreed, and ſold their deteſtable boroughs to the higheſt bidders. By ſuch unlawful and abominable traffick as this, we are held in contempt by the neighbouring nations.

The Dutch in alluſion to the exportation of corn, tell us we are jack-aſſes, and that they ride upon us. And, me thinks, that, it would much better become the Engliſh to provide magazines at home than ſhip it to a moiſt, ſcurvy country, from whence it often returns to us, at an exorbitant price, tho' greatly damaged. Pretended reaſons have been given, for the continuance of this traffick; but in reality, they are lighter than vanity itſelf.

Voltair ſays, "the Engliſh are free only once in ſeven years, and then, make the moſt abominable, and ridiculous uſe of their freedom. No-

thing ſeems to diſplay the great wiſdom of our glorious anceſtors more than eſtabliſhing a part of the government in the hands of the poorer ſort of people. Human prudence cannot fix a ſtronger barrier againſt oppreſſion. Nevertheleſs the devil's own weapon, intemperance, hath ſo debaſed the nature of man, that this barrier is in many places no longer able to reſiſt the force of a pair of ack aſſes. And it ſeems to be nothing leſs than the devil's influence, which conducts theſe animals by pairs to the weakeſt parts of the barrier, where he well knows they can do the greateſt miſchief. This great enemy to man delights in oppreſſion, and the preventing population, as well as war and untimely deaths. Have not you electors, adjudged, that the ſeller is as bad as the thief? Let the electors reflect on the conduct of thoſe nabobs, which are ſo frequently, tho' improperly choſe by them. Their morals are generally depraved ere ever they arrive at the age of twenty-one. I have been acquainted with many of them, and indeed ſailed with one of the beſt of them to India; but ſorry am I to ſay, that he was ſo hardened as to ſee many of the people on board die of the ſcurvy, merely for want of freſh water and freſh proviſions. Our ſlow progreſs in the fore part of the voyage, betwixt Europe and the latitude of the Cape of Good Hope, was a ſtrong preſage of the fatal conſequences which would attend our paſſing that cape, without putting in for refreſhment. There were other places beyond the cape, which would have anſwered well for a freſh ſupply of water and proviſions. We paſſed theſe places alſo, notwithſtanding the ſcurvy had then begun to make its ravages,

ravages, the ſheep, hogs and pultry on board, expended the greateſt part of the people's water, nevertheleſs moſt of them were reſerved for the paſſage home, (which conduct is cuſtomary in ſuch ſhips) although live ſtock, which would have anſwered well for that purpoſe, might have been procured upon the coaſt of India. The ſhip's company had only one day's freſh proviſions in the courſe of about ſix mouths. The reaſon for this nobob's not ſtopping at the cape, or Madagaſcar for refreſhment, was his deſire of getting ſoon upon the coaſt of India, in order to diſpoſe of his private trade to the beſt advantage. Thoſe nabobs who acquire wealth in this way, tho' ſubject to the penalty of the law, may be ſuppoſed to have committed fewer crimes, and thoſe leſs enormous, than ſuch as have been governors, chiefs, &c. in India. The ſcurvy affair cannot be accounted a ſmall crime, but one of the blackeſt dye. The nabobs generally acquire the greateſt part of their wealth by ſmuggling. They ſmuggle to India, which wrongs the proprietors of the company's ſtock. They ſmuggle at their return home, which wrongs the government, and is otherwiſe very hurtful to the nation in general. Theſe large ſmugglers create abundance of ſmall lurking ſmugglers, and what can be more miſchievous to the ſtate? Are theſe law-breakers then to be impoſed upon a nation for law makers? will ſuch men as theſe conſider or feel for the diſtreſs of the induſtrious poor, or will they not rather contribute to increaſe it? I have bought my conſtituents, ſays a law-giver, and I will ſell them again. There are men who are not naturally qualified for law-givers, yet are not better than nabobs,

and yet have the misfortune to be choſe into that ſtate; I ſay, the misfortune to be choſe; for ſuch as have been ſo far miſtaken as to imagine they are not in duty bound to watch over, and lend their beſt aſſiſtance to ſupport the main body of the people, whether they be in diſtreſs, or otherwiſe wanting reaſonable redreſs, will at laſt find themſelves moſt miſerably deceived. It is highly incumbent on thoſe who wear the gown (inſtead of contributing to diſtreſs the induſtrious poor) to inſtruct the electors and elected no longer to aim at baſe and ſelfiſh ends, but the general good of mankind. The land is ſtill very fruitful, thank God, and if rich men were to behave as generouſly to their fellow creatures, as they do to the brute creation, there would be no ground for complaint. The bee ſets us a noble example of induſtry. A modern author obſerves, that "the hive "is a ſchool to which numbers of people ought to "be ſent; prudence, induſtry, benevolence, pub-"lic ſpiritedneſs, oeconomy, neatneſs, and tem-"perance, are all viſible amongſt the bees. Theſe "little animals are actuated by a ſocial ſpirit, "which forms them into a body politic, intimately "united, and perfectly happy. They all labour "for the general advantage: they are all ſubmiſſive "to the laws and regulations of the community; "have no particular intereſt, nor diſtinction, but "thoſe which nature or the neceſſities of their "young have introduced among them. We never "ſee them diſſatisfied with their condition or in-"clinable to abandon the hive in diſguſt, to find them-"ſelves ſlaves or neceſſitous: on the contrary, they "think themſelves in perfect freedom, and perfect "affluence; and ſuch indeed is their real condition.

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"They are free, becauſe they only depend on the "laws; they are happy, becauſe the concurrence "of their ſeveral labours inevitably produces a-"bundance, which contributes to the riches of "each individual. To which let us compare human "ſocieties, (particularly by thoſe in Europe) and "they will appear together monſtrous. Neceſ-"ſity, reaſon, and philoſophy, have eſtabliſhed "them for the commendable purpoſes of mutual "aid and benefits: but a ſpirit of ſelfiſhneſs de-"ſtroys all; and one half of mankind, to load "themſelves with ſuperfluities, leave the other "deſtitute of common neceſſaries."

We have no precedent in the whole brutal creation, which repreſents ſo baſe a degree of ingratitude, as that of ſelfiſhneſs. How long ſhall men, who will not work, ſtarve thoſe induſtrious people to whom they are indebted for almoſt every neceſſary they receive? Hath not the effects of intemperance impowered the devil to overturn reaſon and humanity in theſe very people, who, through their learning, ſtations in life, &c. ought to have been examples of good works. Seven years have I been converſant with the Mogul's ſubjects; his country is of very large extent, and, on this account, may be ſuppoſed difficult to govern well; yet I never ſaw a quarter of the diſtreſs and wretchedneſs amongſt his ſubjects as I have obſerved in Europe; a country infinitely more fruitful than the Mogul's Enpire, tho' perhaps not ſo populous. What means all this ſelfiſhneſs? To what purpoſe is it? We brought nothing into this world, and it is certain we can carry nothing away. Man was created to love God,

God, and to do good to his fellow-creatures, and the nobleſt virtue of his ſoul is charity. Shut no longer thine ear therefore againſt the cries of the poor, neither harden thine heart againſt the calamities of the innocent. When the fatherleſs call upon thee, when the widow's heart is ſunk, and ſhe imploreth thy aſſiſtance with tears of ſorrow, O pity her affliction, and extend thy hand to thoſe who have none to help them. When thou ſeeſt the naked wanderer of the ſtreet ſhivering with cold, and deſtitute of habitation, let bounty open thine heart; let the wings of charity ſhelter him from death, that thine own ſoul may live. Whilſt the poor man groaneth on the bed of ſickneſs, whilſt the unfortunate languiſh in the horrors of a dungeon, or the hoary head of age lifts up a feeble eye to thee for pity; O how canſt thou riot in ſuperfluous enjoyments, regardleſs of their wants, unfeeling of their woes!

Let not man, whoſe very ſhort and uncertain pilgrimage on earth, think it a ſmall crime to oppreſs his brother; for it is quite the reverſe, and appears monſtrous to every upright and diſcerning man, notwithſtanding it hath long been in practice. What can the preſent oppreſſors and their abetters plead, at the general and final judgment, in their own behalf? Will they ſay, they followed cuſtom? this will have no weight at that awful tribunal. Will they plead that their miſconduct was owing to intemperance, which weakened, and let ſatan in upon them? This will not anſwer their purpoſe. Intemperance itſelf being abſolutely forbid, as being the mother of crimes, diſeaſes, &c. Too many premeditated plans for inriching themſelves,

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bear witneſs againſt them, and leave no ground for their defence; had the induſtrious and laborious been as viciouſly inclined as the indolent and effeminate generally are, neither racking upon the wheel nor riot-acts would have deterred them from making forcible endeavours to allay the pangs of hunger, and the pains occaſioned by cold and nakedneſs. But far be it from me to encourage inteſtine broils. I am quite averſe to any thing of the kind; they are abominable. I therefore moſt ſeriouſly recommend it to the needy to wait longer with their wonted patience, better times it is to be hoped are near at hand. He who knows how to reap the greateſt advantage from a labouring animal, will neither hunger nor otherwiſe ſtarve him. How much leſs then ought man to diſtreſs his brother. O weak and contemptible wretches to what a depth of ingratitude are you ſunk! How hath intemperance and the devil miſled you? Of all the various ſins committed by man, none ſeems more mean and baſe than that of ingratitude; it has a hidious aſpect, and ſhews that the man who is guilty of it hath but a dark proſpect of the law of nature. Where is his charity, and where his love? Intemperance and the devil root up the ſeeds of charity, and ſupply the place with pride and avarice. Intemperance itſelf turns natural love into unnatural luſt. Intemperance and the devil ſeem to have been the cauſe of ſeveral evils in the firſt ages of the world. Neceſſity, reaſon, &c. induced men for their mutual good, to fix upon laws and rules whereby to govern themſelves; and in order that ſuch laws ſhould be obſerved, they appointed magiſtrates

magiſtrates to ſee them properly complied with; but how ſuch magiſtrates have ſince unjuſtly incroached upon the people, and abuſe their truſt, is too notorious to be inſiſted on. There are none who govern after a deſpotic manner, can ſhew the leaſt right for ſo doing, ſuch government being againſt the law of nature and common reaſon. The glory of a king is the welfare of his people, his power and dominion reſteth on the hearts of his ſubjects. The ſcepter of power is placed in thy hand: but not for thy ſelf were theſe enſigns given, not meant for thine own, but the good of thy kingdom. The ſpirit of a man is in him; ſeverity and rigour may ſometimes create fear, but but can never command his love.

CONCLUSION.

THE illuſtrious reformers of the church ſaw the eager and ſucceſsful attempts which ſatan made upon the princes, magiſtrates, paſtors, &c. of the people, and therefore appointed ſuitable prayers to be offered up to God, by the people, in their ſolemn aſſemblies, in behalf of them: although the prayers of a righteous man availeth much, what but the juſt vengeance of an offended God can be expected, from the ſurpriſing increaſe of intemperance, which it is too plain weakens and corrupts the human underſtanding, and thereby lets in the power of ſatan, who, it appears, is ever ſtriving to lead captive, at his will, theſe men who have the greateſt power to deſtroy, oppreſs, &c. for to deſtroy and oppreſs our fellow-creatures, is running directly againſt God's commands, and according to

to the will of our avowed and moſt dangerous enemy, the ſubtle ſerpent. Therefore it is high time that the leading men in office, &c. be appriſed of their miſtake, that they may join with their people in the common cauſe againſt intemperanee, inſtead of oppreſſing and warring againſt each other. Theſe are the very worſt of employments, and employments of a far more excellent nature might be taken in hand, which would be well pleaſing in the ſight of our moſt Gracious and Omnipotent Creator. In gratitude therefore to God, and for the benefit of mankind, I propoſe to the leaders and the reſt of Europe, another employment, viz. Barter with the Jews, and Gentiles. Give and take. Give pure religion, and receive their cleanly and ſalutary cuſtoms. Teach them without ſuperſtition the goſpel of Chriſt, in its greateſt purity, and learn from them (it was from them I received it) how to make the beſt uſe of pure water. Draw near to them in a cleanly and temperate manner, and they will draw near to you; and let us in the name of God be one fold and under one great ſhepherd. Then may the wolf dwell with the lamb, and the leopard lie down with the kid; and the calf, and the young lion, and fatling together, and the little child lead them; and the cow, and the bear, feed their young ones, and lie down together; and the lion eat ſtraw like the ox. And then may the earth be full of the knowledge of the Lord, as the waters cover the ſea.

FINIS.